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LECTURES

ON THE

ORGANS OF REPRODUCTION IN THE ANIMAL KINGDOM.

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LECTURE XXIII.—JUNE 11, 1840.

IN the preceding lectures have been discussed the modes of production of the ovum and of the seed; the reciprocal action of these upon each other constituting impregnation; the conveyance of the ovum from the ovarium to the situation in which development is to be effected; the development of the embryo within the uterus; the extrication of the fœtus from its membranes; and its subsequent separation from the parent. We shall now trace, through the different classes, the various circumstances and phenomena which accompany the formation of a requisite nidus for the development of the embryo; the production of the necessary temperature; the provision of a requisite proportion of nutrition; and the removal of effete parts from the system.

In the embryo of fishes, a vitelline bag, containing the nutritive substance, is appended to the abdomen, and connected with the alimentary canal by means of a short ductus vitello-intestinalis. The surface of this vitelline sac is abundantly supplied with the ramifications of the vitelline, or omphalo-mesenteric vessels. The effete and azotised parts of the system are eliminated by means of two glandular organs, the Wolffian bodies. The carbon is removed by means of processes of the anterior portion of the alimentary canal, which form folds upon each side of the head, and constitute the branchiæ, or gills.

The embryos of batrachia, derive their nutrition, also, from a vitelline sac, or vitellarium. Wolffian bodies for the removal of the effete azote are soon produced; and, at the same time, prolongations take place from the anterior part of the digestive canal, forming branchiæ for the elimination of the effete carbon. These branchiæ are removed in the adult condition of the animal.

In higher reptiles and birds, the vitellarium is of a larger size, and contains more nutritive substance. At the period corresponding with the branchiæ in fishes and batrachia, processes of the digestive mucous membrane form rudimentary sacculi upon the sides of the fauces, but retain that rudimentary form during life. At the same time a cæcal process is produced from the opposite end of the digestive canal, near to the cloaca, which increases rapidly in growth, and carries with it ramifications from the hypogastric arteries. The blood is returned by a large vein, which passes over the liver and terminates near the heart. This sac examined in the Sheep was called, by Galen, the allantois; its highly vascular structure coming into contact with the internal surface of the shell, enables it to perform the office of a temporary respiratory organ.

Thus far no difficulty will be found to arise in tracing the analogies of the different structures and organs which have been described. With respect to the amnios, we may briefly recapitulate the manner of its production: it is first formed immediately beneath the membrana vitelli as the most superficial, the serous layer of the germinal membrane. As the embryonic trace gradually rises above the surface of the germinal membrane, it becomes invested in this amniotic covering, and, sinking after a time into the yelk, becomes surrounded by an additional or reflected covering of the amnios. The edges of this reflected portion gradually coalesce over the dorsal surface of the embryo, and the amnios is then converted into a shut sac. We have now only to suppose the endosmose of the surrounding fluids into this cavity, to produce the expansion of the amnios which is found in man, but which is much less in the inferior mammifera and in birds.

In the ovum of birds we find a yelk, a membrana vitelli, a collection of albumen, a membrana testæ, and a shell; and the question naturally arises, as to whether anything analogous to the albumen and membrana testæ occurs in the ovum of mammiferous animals. On this point much differ-

ence of opinion exists among physiologists. Burdach, in his recent work, considers the chorion to be the representative of the membrana vitelli of birds. In the Ornithorynchus we have seen indisputable evidence of the analogy of the ovum with that of the bird. The albumen is more fluid than that of the bird, and is contained in a distinct membrane, analogous to the membrana testæ and shell combined. It may be objected to this opinion, that the egg of the Ornithorynchus may be simply the yelk inclosed in its membrane, and that it may acquire a membrana testæ and shell before being emitted externally; but we have seen that all the analogies are wanting which would lead to the supposition that the ovum of this animal is incubated. The extremely small size of the vitellus, the absence of chalazæ, &c., all justify the inference that it is developed within the uterus, whether by a placental connection or not remaining yet to be decided. If any doubt previously existed with regard to the analogy of the chorion of the human ovum and the membrana testæ, that doubt has been wholly removed by the researches of Dr. Martin Barry, who has observed the formation of the chorion within the Fallopian tube of mammiferous animals, and has described the repletion of that membrane by means of endosmose, with a fluid analogous to the albumen of the egg of the bird.

Modifications of a very striking kind are observed in different orders of mammifera; of these one of the most interesting is marsupiata, the more particularly on account of the very singular theories and opinions which have hitherto been entertained with regard to the manner of reproduction in these animals. The older travellers regarded them as gemmiparous, conceiving from the small size of the embryo, when first received into the pouch, and from its imperfect development and close adhesion to the nipple, that it was actually produced by the sprouting forth of a bud from the apex of the nipple. The latest writer who advocates this opinion is Geoffroy St. Hilaire. Dr. Barton establishes, very clearly, the existence of the embryo in the uterus, and found it, too, excluded in a most imperfect state, with hardly a trace of its proper form. Geoffroy St. Hilaire and Serres have described a vascular communication between the mouth of the embryo and the nipple of the parent, and they regarded the thyroid gland as the rudiment of the organ from which this vascular connection was produced. To elucidate this interesting subject, recourse was had, in the Zoological Gardens, to direct experiment. A female, submitted to the coitus, was removed into a separate cage, and her pouch was carefully examined every morning and evening. On the morning of the thirty-ninth day, an embryo was found adherent to one of the nipples by means of its circular sucker-like mouth. It did not exceed one inch in length, was transparent, vascular, and more like an earthworm than the embryo of an animal which, in its adult state, measures six or seven feet in height.

The next question that arises relates to the manner in which the embryo is developed within the uterus. The evidence upon this question is contained in the two preparations now before us; in the one, the development has proceeded to the twentieth or twenty-first day; and in the other, to the thirty-fifth or thirty-sixth. In the first, the embryo is contained in a large, thin, and unvascular chorion; within this is a large and transversely elongated sac, intimately applied at one point to the internal surface of the chorion, where it is brought in contact with the vascular surface of the uterus. This internal sac is extremely vascular, and is folded into plaits which are received between corresponding plaits of the internal surface of the true uterus. The vessels ramifying upon the sac are the omphalo-mesenteric. This is the only membrane which exists at this period; and the embryo at this point is perfectly analogous to the embryo of the bird previously to the development of the allantois. In the bird, as soon as the extremities begin to be observed, the allantois commences to be developed. So in the Kangaroo, co-existent with the formation of the true kidneys, the allantois is produced for the purpose of receiving the secretion of those organs; in its growth it carries with it some branches of the hypogastric vessels, but remains permanently of small size. If the embryo of the Kangaroo be compared with that of a rodent animal, a remarkable difference, commensurate with their relative functions in the embryonic state, will be observed. In the embryo of the Kangaroo the heart is completed, the ductus arteriosus is obliterated, and the foramen ovale closed, while the lungs are of enormous size. The chorion is wholly non-vascular, as in birds.

Pachydermata. — In these animals the chorion is more or less villous over its entire surface, but there is no true placenta or cotyledons. In the common Hog, at about the eighth day after being received into the uterus, there are distinct traces of the embryo; the vitellarium assumes an elongated form, constituting a cylindrical sac, which is attached by filaments to the internal surface of the chorion. On the thirteenth day the allantois makes its appearance, consisting of two layers; an internal or mucous membrane, which remains of small size; and a vascular membrane, which, quitting the inner layer, increases very much in size, and comes in contact with the chorion. The villi of the chorion are received into corresponding depressions upon the internal surface of the uterus, and into these the vessels from the allantois are prolonged. Between the villi, when injected from the chorion, numerous unvascular spots will be observed,

which correspond with uninjected plexuses of veins.

Ruminantia.—In all essential particulars the structures concerned in the phenomena of development resemble those of the Hog. The vitellarium (umbilical sac of man) becomes elongated in the same manner, and separates into two layers, of which the external or vascular extends rapidly to the internal surface of the chorion. The vessels, however, are not distributed equally over the surface, but are confined to particular spots. Corresponding portions upon the internal surface of the uterus become enlarged, and present deep fossæ, into which the prolonged vessels, with the chorion, are extended, constituting the cotyledons or placentulæ. The Camel resembles the pachydermata, having no cotyledons (as do cetacea); while the rest of the ruminant order, the Cow, the Sheep, the Giraffe, possess this earliest form of placenta. Before quitting this order, it would be interesting to remark upon the peculiar modification of reproduction which occurs in the Roebuck, as observed by Pockelts. The period of the rut is the month of August, when the female is impregnated; but she does not bring forth her young until the succeeding April. It has been a subject of astonishment, that so small a species should have so long a pregnancy, while the Fallow Deer produces her offspring in six months. It has, however, been observed in the former, that the internal generative organs remain in their inactive and unimpregnated state until the month of December, before any change ensues. At the latter period the ovaries become vascular and distended, the ovum enlarges and bursts from the ovarium. This remarkable suspension of activity between impregnation and conduction is wholly unexampled in the animal kingdom, and is very interesting.

Rodentia.—In rodent animals we find a single placenta; the rest of the chorion being vascular, but perfectly smooth. At an early period the chorion is lined by a distinct membrane, the endo-chorion, which is not a product of the allantois, but of the umbilical vesicle or vitellarium, which is of immense size. The true allantois is small, and merely serves the purpose of conducting the hypogastric vessels to the chorion.

In *Feræ*, as in the Cat, the placenta forms a hoop or ring which surrounds the middle of the embryo. The vitelline membrane bears the same proportions as in ruminantia and pachydermata, and possesses a somewhat three-sided form. The allantois is very analogous in these three orders of animals. In mammalia, the essential office of the allantois is to convey the vessels of the embryo to the placenta; and this is effected without burthening the umbilical vessel, which is connected with the alimentary canal, and has other important offices to perform. In this case, it is not the entire membrane which effects this object, but merely the outermost layer. In Feræ, the maternal portion of the placenta is deciduous, and not persistent, as in ruminants. It is also different in structure, and consists of vessels terminating in capillaries which become dilated; offering a first indication of the cells of the human placenta.

In *Quadrumana*, there is but a slight development of the vitellarium, which disappears early, and no trace of its existence is apparent in the fully-formed fœtus. The allantois reaches the usual extent of growth, the mucous layer remaining of small size. The vascular layer is provided with a number of large and closely-aggregated vessels, and constitutes the endo-chorion. The placenta is very similar in structure to that of man, but is bilobed; the uterine veins of the maternal portion, however, fortunately possess stronger coats than those of the human being, and may be more easily traced from the oblique apertures upon the internal surface of the uterus into the cells of the placenta, where they receive the capillaries of the fœtal system.

The human ovum, described in accordance with these analogies, is found to consist of a chorion; an amnios; two closed sacs;—the one of a yellowish colour, globular or pyriform in shape, and called the umbilical vesicle, corresponding with the vitellarium or yelk-bag of other animals;—the other, small, flattened, and triangular, or pyriform in shape, called by Pockelts, from its colour, the vesicula erythroides; it is situated externally to the amnios, and is connected with the umbilicus by means of a pedicle. There can be no question with regard to the homology proposed by Baer, in the analogy of this latter vesicle with the allantois. Baer describes the separation of the layers of this membrane, and the extension of the whole of the external or vascular layer, to the internal surface of the chorion carrying with it the vessels of the embryo. Velpeau and other writers, in the ovum at two months, indicate two layers to the chorion, the exochorion and endo-chorion. The latter is no essential part of the chorion, but a development from the embryo; it is, moreover, no special part, for it is sometimes an extension of the umbilical vesicle as in the Rabbit, and sometimes a layer of the allantois as in the pachydermata. In the human ovum this layer is extensively developed, in Feræ and Rodentia there is merely a trace.

In the human being, a peculiar membranous layer, resembling coagulable lymph in its structure, is prepared by the uterus for the reception of the ovum from the Fallopian tube. The ovum gradually presses this membrane before it at one point, and obtains a proper investment. That portion of the uterus which lines the uterus is called the decidua vera, and that which surrounds the ovum the decidua reflexa: the cavity of the decidua, forming a kind of water-bed for

the ovum, is filled with a sanguineous fluid. This cavity has been called by physiologists the hydro-perionic cavity, and the fluid which it contains the perionic fluid. The peculiar structure of the decidua, with its characteristic palmated vessels, we must leave without the notice which they deserve, from the absence of the necessary time to go into their details.

Mr. Owen observed, at the conclusion of his lecture, that he hoped he had succeeded in making clear that which was known upon the subjects in which he had been engaged. With regard to the opinions which he had expressed upon the nature of those primitive sacs, the vitellarium and allantois, he had arrived at his conclusions from careful examination and observation; and he had no hesitation in asserting the truth of his expressed views as to their nature, as well as to that of the endo-chorion.

LECTURE XXIV.—June 13, 1840.

In the preceding lectures have been discussed, the nature and mode of production of the appendages of the ovum, and of the formation of the membranes of the embryo, together with the progressive development of the fœtus within the uterus, and its means of nutrition. We next traced the modifications which these phenomena presented in the different orders of vertebrata, and observed how far the more apparent structures in the egg of the bird could be compared analogically with the more complicated apparatus of the human ovum. There is no subject from the study of which, in the numerous works on embryology, the student will arise more oppressed by the difficulties and complexities by which it is surrounded, than the one which is now before us. These difficulties principally depending not so much upon the great number of names which have been given to the various parts, as upon the application of these terms by different writers to different parts of the ovum. The analogies of the various structures, moreover, are subject of dispute, and frequently their very existence. The presence of an allantois in the human subject has been questioned, as if it were possible that the vessels of the embryo could be conveyed to the chorion without this apparatus intended expressly for that office. The analogies of the chorion have been greatly assisted by the discovery and dissection of the ovum of the Ornithorynchus paradoxus, wherein we find an external tunic, corresponding with the membrana testæ, and representing the chorion of mammiferous animals. Within this membrana testæ is the albumen, and then succeeds the vitellus inclosed in its vitelline membrane. During the progress of the development of the embryo, two sacculi are evolved; although we cannot correctly make use of the term evolved in relation to the yelk-bag, for it is evident that it precedes the formation of the embryo. The other sacculus becomes subsequently the allantois. In the Cat, and throughout the order Feræ, we have seen the yelk-bag elongated in form, attenuated towards each extremity, and provided with the ramifications of vessels which we know to be the omphalo-mesenteric. Then, near the posterior part of the digestive canal, another sacculus is produced, which advances rapidly in growth and separates into two layers. The internal layer soon becomes arrested in its enlargement, while the external extends to the internal surface of the chorion, and by means of the vessels which it carries upon its surface, seems to organise the placenta.

The placenta we have seen to present a great variety of forms; from the simple membranous chorion of the Sow, covered over every part of its surface with small papillæ, to the numerous cotyledons of ruminants; the hoop-like arrangement of the Cat; the bilobed placenta of quadrumana; and the single-rounded disk of man. In birds, marsupiata, and monotremata, the vessels of the embryo do not extend beyond the vascular layer of the allantois. Among the higher mammifera they shoot into the chorion, terminating in capillaries, and ramifying upon the cells containing the blood of the parent, where a chemical and vital endosmosis takes place, and the nutritious elements are obtained from the maternal blood.

In the Rabbit, the vitellarium increases in size with a rapidity which equals the ordinary growth of the allantois, applies itself to the internal surface of the chorion, and distributes its vessels in contact with that membrane. But in this case the vitellarium does not proceed completely around the embryo, one portion still remains uninvested; and it is through the corresponding gap, that the diminutive allantois proceeds to the unoccupied part of the chorion and forms the placenta.

In pachydermata, as in the Hog, the allantois is of large size, and very extensive, carrying the vessels to the numerous papillæ of the chorion which represent the placenta; for in this order there is no distinct organ performing the functions of a placenta. Among Feræ, the allantois is also of large size, for the purpose of conducting the vessels to the hoop-like placenta which surrounds the body of the embryo.

In the human being the amniotic cavity is remarkable for its large size; the vitellarium is always small, and the mucous layer of the allantois is also small. The vascular layer is prolonged to the internal surface of the chorion, and up to the second month is susceptible of being detached from that membrane. It is this layer which constitutes the endo-chorion. The endo-chorion

in the human subject is sometimes formed by the vascular layer of the allantois, and sometimes by the vitellarium, it is consequently no definite structure. Besides the membranous and vascular coverings, which are common to man with the rest of animals, one larger formed within the uterus is peculiar to the human being, the decidua. The decidua is analogous to the shell of birds, and to the external membranous and soft covering of some of the lower vertebrata; and perhaps may be regarded as the link of transition between these two structures.

Analogous, in some respects, to the human decidua, are the gelatinous coverings which are found investing the ova of the molluscous tribes, such as the compound nidi of the buccinum, the murex; and not dissimilar are the compound nests of many social insects, as the comb of the Bee, or the nidi of some of the lepidopterous tribes. One of the most remarkable of the defensive investments of the insect tribe, and one which is analogous to the pouches of the marsupiata, is the elongated case of one of the lepidoptera, which is lined in the interior with a soft and downy layer of silk, and covered externally with an aggregation of small pieces of dried stick and wood, so as to resemble the branches of the trees among which it is suspended. Another method of protection to the ovum and the embryo is seen in the skilful nests excavated in old and decaying timber by the Xylopifer, or Carpenter Bee. Many fishes, as the Salmon, dig deep burrows in the sandy bottom of the shallow streams in which they reside. Some of the reptile tribe, as the Crocodiles, burrow in the sandy banks of the rivers in which they live to bury their eggs. The green Turtle digs a trench fully two feet deep for the same purpose. Among insects are to be found similar instances, as in the common Lytta vesicatoria, which burrows in the soil to secrete its ova. The great blind Snail forms subterraneous chambers, of a pyriform shape.

Among fishes we have a remarkable example of the building of a nest analogous to that which is formed by birds, in the Gobius niger, which fashions its nidus among the sea-weeds; and, after depositing its ova, watches them with maternal care until they are hatched. This example is the more interesting from occurring in a class of animals remarkable for their indifference towards the young. It is a fact, first pointed out by Aristotle; and subsequently confirmed by several naturalists, familiar with the Mediterranean sea.

The formation of artificial nests is most common among birds, in which class there are very few exceptions to this instinct; the most remarkable of these exceptions is the Cuckoo, which lays her eggs in the nests of other birds; like the Ichneumon fly, among insects, which deposits her eggs sometimes in the ova, but more frequently in the bodies of the larvæ of other insects: in this act a kind of instinct enables the mother to avoid the important viscera of the larva, the injury of which might be destructive of life too soon for the purposes of her own offspring, and she rarely places them deeper than the adipose tissue, from which, during their development, they draw the necessary warmth and nourishment; the Cuckoo having deposited her egg in the nest of some smaller bird, as the Sparrow, leaves it to be incubated by the foster parent; while the young Cuckoo, soon after being hatched, tumbles the young of the Sparrow from the nest. Some physical cause for this peculiar instinct in the Cuckoo has been looked for by naturalists, such as the peculiar position of the viscera, but without success. From the observations of a recent naturalist, it would appear that the interval between the deposit of each egg is very considerable, as much as eight or fifteen days. If the parent built her nest, and laid her eggs, and afterwards incubated them herself, she would be detained for a great length of time before their exclusion; and, again, for a considerable time after this period, for the young leave the egg prematurely, and require to be fed for a great length of time before attaining that power in themselves: the young of the Cuckoo are smaller than those of any other bird at the time of hatching. Now, the food of the full-grown Cuckoo is a certain kind of hairy caterpillars, which abound only for a short space of time during the summer season, and upon the scarcity of this food in this country the Cuckoo is compelled to seek it in a warmer climate; the young, on the contrary, devours most voraciously all the food which can be procured for it by its foster parent, and demands her whole attention.

With reference to the building of nests, it will be interesting to select some few of the most curious and remarkable facts which can be noted in a cursory glance at so extensive a subject. Nidification is most imperfect among polygamous birds, and they are constructed wholly by the female. Among the monogamous tribes the male assists, by collecting and bringing the material to the female. Some polygamous birds, as the Struthious genus, possess a common nest, which is resorted to by several females; such is the case with the Ostrich of Africa, the Rhea or Cassowary, and the Emu. In these birds it has been observed in our Zoological Gardens, that it is the male and not the female that incubates the eggs; a peculiarity which reminds us of the instance among fishes of a marsupial pouch developed in the male, for the reception and incubation of the ova.

Some birds build their nests close to each other, and in this respect they resemble the social nidi of some of the molluscous tribes

and insects; the Penguins make holes in the sand, and incubate in large clusters; the Ploceus granivorus constructs a compound nest, which resembles the roof of a thatched building among the trees. In the tropics, many of the smaller passerine tribes adopt the most ingenious contrivances for escaping the depredations of Monkeys, Serpents, and their other numerous destroyers; the Parus pendulinus suspends its beautifully-constructed nest by means of a delicate thread from the branch of a tree; the Tailor-bird sews leaves together with filaments of cotton to construct her nest; but nests are not exclusively the production of birds; there are numerous instances also found among mammifera, especially in that order which so nearly resembles birds, in the smallness of brain, the rapidity of circulation, and activity of muscular movement, the Rodentia. A very perfect nest is constructed by the harvest and field Mouse.

The next kinds of nests that we have to examine, are those which are formed at the expense of living plants or animals, or are developed upon the body of the parent. Of this class are those curious productions occasionally found on plants, which are the result of a process analogous to adhesive inflammation in animal tissues, caused by the insertion of the ova of an insect into the substance of a bud. Such are the galls produced by the Cynipes, and that remarkable growth seen upon the rose, and occasioned by the Cynips rosæ. Animal structures are not unfrequently made the nidi of oviposition for insects, as the integument of the back in cattle, the legs and breast of the Horse. In these cases the ova of some species of fly are taken into the alimentary canal, so that the stomach of the Horse becomes a kind of uterus in which the ova of the Œstrus equi undergo a part of their development, and become larvæ (bots). The alimentary canal of the Ox again acts as a marsupial pouch to the Œstrus bovi; and the nasal passages of the Sheep as a nidus to the Œstrus nasi.

In some of the molluscous tribes the ova are inclosed in a membranous investment formed by the protrusion of the ova into a secretion of mucous matter; and in certain instances these bags are afterwards rubbed off by the parent, and suspended to a bag of air which serves them as a raft; in one species of Leech, the nidus of the ova remains attached to one part of the body of the animal; in a water-insect, the Nepa, the ova are inclosed in capsules, which are attached to the dorsal surface of the body, and remind us of the Rana pipa; in spiders, these capsules of ova are connected with the body, and carried about with the animal.

The crustacea present this marsupial disposition in a part of the body in great variety. In the parasitic species, as the Lernæ, the ova are propelled into a film of mucus, which becomes increased in quantity, and more and more dilated as new ova are added. In some a true development of the tegumentary system occurs, as in the Opossum shrimp; and throughout the class there are numerous laminæ furnished with ciliated appendages, which serve for the attachment of ova. These are found in great number upon the inferior surface of the caudal segments of the common Lobster, or beneath the broad and widely-spread caudal segments of the Brachiurous crustacea.

In fishes, although, from their general habits, an apparatus for the protection of the ova can be scarcely anticipated, yet, as we have already seen, one genus forms a true nest, and the parent watches for its defence; so in an entire order, the Syngnathi and Hippocampi, we find in the male a remarkable marsupial pouch, into which the ova are received and incubated. No such disposition of the tegumentary organs exists in the female.

The ordinary situation for the location of ova, for their defence, is the abdominal surface of the animal, but numerous instances exist in which this position is reversed. As, for instance, in the Surinam Toad, where the young have cells of protection upon the dorsal surface of the body. Before the exclusion of the ova, there is very little trace of cells in this situation; in what manner their growth is determined is not known, probably by some process analogous to adhesive inflammation. In one species, the Bufo obstetricus, the male assists the female in the processes connected with the production of the ova. These dorsal cells of the Toad are seated exclusively in the integument, and in them the embryos go through all their stages of development. There is no difference in the mode of growth of these embryos and the water batrachia; they are similarly provided with branchiæ, and pass through the usual changes.

Among marsupiata, the marsupial pouch presents every variety of gradation. In a species of Opossum, of very small size, there are merely two longitudinal folds in the usual position of the pouch. In another species, with extremely long legs, so placed that the anterior part of the body is always lower than the posterior, the marsupium opens posteriorly.

Mammary Glands.—The marsupium always contains the nipples, and the number of these corresponds, as in most animals, with the relative number of the young. In the Opossum, which produces a great number of young, there are thirteen nipples, twelve in a circle, and the thirteenth central. In the Kangaroo, where rarely more than one young is brought forth at a time, there are four nipples, two being larger than the other two. Mr. Morgan has observed, that in the young female there is no trace of

nipple, that there are merely follicular depressions, and at the bottom of these are situated the nipples; this condition is permanent in the male. The cremaster muscle in the female is spread out over the gland, and by means of its pulley-like action around the marsupial bones, is enabled to act forcibly upon the gland. Besides these, there are muscular fibres which form a complete investment for the nipples, and are continued onwards to their points.

The young of marsupiata are furnished with a circular mouth, perfectly adapted for holding the teat; while the muscular action around the gland propels the milk into its cavity. The form of the fauces and œsophagus, moreover, corresponds very accurately with the function which it is intended to perform at this period. The opening of the larynx is protected against the entrance of the milk, by the elongation of the arytenoid cartilages, and their extension as far as the posterior nares.

In the nearly allied order monotremata, as in the Ornithorynchus and Echidna, Meckel has stated that there is no nipple; but, in place of that, a circular area, perforated with sixty or eighty openings, which lead to an equal number of dilated follicles, situated beneath the surface. From the peculiar form of the Ornithorynchus, with its lengthened beak, Geoffroy St. Hilaire maintained the inapplicability of its mouth for sucking, and suggested that the mammary glands must be intended for the purpose of secreting a mucous or albuminous fluid, like the crural glands of the same animal, or like the mucous glands of some reptiles, or the glands situated near the tail and upon the flanks of the Shrew. The subject was involved in doubts of this kind, when Mr. Owen commenced a series of dissections, for the purpose of determining the relative development of this gland and of the ovary. During these observations, he found that the mammary gland had advanced about two-thirds in its enlargement when the ovary had attained its full sexual growth, and that the relative phases of development in the two corresponded very accurately. Since that time, Captain Philip Parker King has procured some of the milk from this gland. Again, from the singular form of the mouth, with its bird-like beak, in the adult, no anatomist could be warranted in asserting that the form of the mouth in the embryo must be the same. Mr. Owen, in a preparation of an embryo in the museum of the Zoological Society, found the tongue broad and large, and surrounded by a thick and vascular margin, which afterwards became developed into the mandibles. This kind of mouth is well adapted for applying to the openings which represent the nipple. The gland, like that of marsupiata, is surrounded by a thick muscular layer, which assists in expressing the milk. In Cetacea, whose form, the medium in which they live, and the absence of apparent nipples, would indicate at least great difficulty in lactation; a muscular layer is also found surrounding the mammary gland. Our knowledge of the anatomy and structure of the mammary gland has been lately much enriched by the labours of Sir Astley Cooper, the results of which have been communicated in his classical and beautiful work; in which have been carried out, so ably and so well, the observations already commenced by Hunter.

In ruminants, those large reservoirs are well seen which contain the milk previously to its emission. In the fœtus of this order the nipples are six in number; of which two remain rudimentary, or disappear; while the remaining four increase in size. In the Rabbit the mammary glands are very long, extending the whole length of the abdominal surface of the animal, and are provided with numerous teats; the secreting structure and excretory ducts of each nipple being independent of those belonging to the next.

The ordinary situation of the mammary glands is abdominal. In the cetacea they are placed near the vulva. In quadrumana and cheiroptera they are pectoral, extending in some of the larger bats into the axillary regions. It is, however, singular to find the pectoral disposition of these glands amongst the inferior mammifera; as in the Elephant, where the mammæ are situated between the fore-legs; and in the Dugong, which Cuvier classed with cetacea, but which more correctly belongs to the order pachydermata.

As we have found mammalia to trench upon the limits of birds in the formation of nests, so, also, in some birds, as in the common Pigeon, there exists the power of secreting a nutrient fluid for the young, which resembles, in its appearance and properties, the milk of mammalia. The situation of this secretion is the ingluvies or crop, whence it is raised by the parent to assist in the nourishment of the young.

Hunter's series of preparations, illustrative of the organs of reproduction, conclude at this point; and with them the fourth year of the lectures of Mr. Owen. During this period the organic functions have been illustrated, and there remains yet for consideration, in subsequent years, the osseous, muscular, and nervous systems, and the organs of sense.

Pari passu with the preparations for these lectures, Mr. Owen observed, that he had been engaged in arranging the catalogue of the Hunterian collection: four volumes had appeared; the fifth and remaining one, he was happy to state, was in the press, and would be published in the course of a few weeks. Until another season, should he still hold the honourable position which he then occupied, he wished his hearers health and happiness.

MEANS OF RESUSCITATION IN ASPHYXIA.

To the Editor of THE LANCET.

SIR:—Noticing in a late Number of THE LANCET, the means which were pursued in the Charing-cross Hospital of resuscitation in the case of Scott, the American diver, I was struck with the inefficiency of their nature; and as cases of asphyxia, of one kind or other, are of every-day occurrence, I beg to be permitted, through the medium of your widely-circulated Journal, to draw the attention of the profession to the subject, and to the following communication, which I was induced, a short time ago, to make to the Royal Humane Society, in consequence of reading, some time before, in one of the daily papers, the strictures of an individual upon the means of resuscitation pursued in the instance of a person who was drowned in one of the parks; in the hope that it may induce some one, in furtherance of my suggestions, to make the necessary experiments, with a view to the improvement of our practice, which at present is so unsatisfactory in these cases. To the communication annexed, which was made to the Humane Society, I shall be excused subjoining an extract from the letter I had the honour to receive in acknowledgment from the secretary, as it involves a question regarding the transfusion of blood, to which I was incapable of making any reply; and respecting which, some of your correspondents will, perhaps, do me the favour to enlighten me. Before entering upon the means of resuscitation to be pursued in these cases of arrest of the manifestations of life, we must first consider the cause of suspension of life, by submersion in water or drowning. This is, unquestionably, attributable to the cessation of the respiratory process,—or rather should it be said, that death ensues from the arrest of those chemical changes which take place in the blood circulating in the capillary system, by which caloric and electricity are evolved,* the two exciting and maintaining agents of life, in consequence of the exclusion of the oxygen of the air, one of the elements in the accomplishment of these changes, from the lungs, the principal channel of its admission into the blood. These views being accorded me as correct, the chief indication to restore animation, it is obvious, is the re-establishment of those chemical changes in the blood; to accomplish which, there are two great purposes to be held in view: one is to supply the necessary oxygen by artificial respiration; and the other is, to impart that degree of temperature to the blood and body, essential to the combination of the oxygen with the elements of the blood—carbon principally—by which the chemical changes connected with the evolution of heat and electricity are effected.

The importance of the latter is rendered obvious by the fact, that carbon will not combine with oxygen, but under circumstances of a given temperature. It is fair, therefore, to suppose, seeing that these chemical changes upon which life depends consist principally in the slow combustion of carbon, one of the constituents of the blood, by its combination with oxygen, that the body's high temperature is not an effect alone of those chemical changes taking place, but is also subservient to their accomplishment, that this high temperature is, indeed, the essential cause of their continuance. In like manner, that the heat of the fire in our grates is indispensable to the combustion of the fuel. Hence, as every species of animal has its own particular temperature at which its functions are healthily performed, and as man's temperature is 98°, we may fairly presume this temperature is an essential element in effecting not only the digestive and secretive processes which take place in the system, but in effecting those more important chemical changes in the blood, by which caloric and electricity are evolved, and life maintained; and hence it is, when the respiratory function has been for some minutes arrested, and the temperature of the body reduced below that point essential to those chemical changes being effected, that life is so seldom restored. Whereas, I am of opinion, seeing the experiments of Dr. Philip prove to us that the capillary circulation or organic life continues in action for some hours after the apparent death of an animal, that if the general temperature of the body were restored and oxygen furnished to the blood, that life would be reinstated; so long, that is to say, as the blood in the large vessels retains its fluidity, or condition essential to its circulation, and to those chemical changes being effected in its composition by which heat and life are maintained.

These views meet support in the experiments of Brodie, who could not restore suspended animation in animals, a few minutes after apparent death, by artificial respiration; for the obvious reason, that the latter was found to be a cooling process to the general system; or, in other words, the inflation of cold air into the lungs reduced the temperature below that point, essential to the accomplishment of the chemical changes. As we see exemplified in the fire in the grate, which, if reduced below a given point, will be wholly extinguished by the incautious use of the bellows.

With these facts before us, will it be believed, that with the body so much reduced

* In elucidation of this subject, see a paper of mine, read at the Westminster Medical Society, "On the Nature, Source, and Distribution of the Nervous Fluid of Electricity of the Animal System," and published in THE LANCET, June 4, 1831.

in temperature, as it must be by drowning in cold water, and particularly in the winter season, that the practice, in the means of resuscitation pursued, is continued, to inflate the lungs with cold air? Yet such, I believe, is the case; and, moreover, how inefficient are all the other means which are pursued in such cases to restore heat and life to the body, compared to what might and ought to be done on such occasions.

The following suggest themselves to me, as the principal means of resuscitation to be pursued:—

First. The body should be immersed in a bath of pretty high temperature, after removing any water that may have been imbibed during the conflict of death, by the stomach or lungs, by elevating the heels or by the use of the stomach-pump. If the bath be not available, the body should be placed on a mattress before a good fire, and well rubbed with hot flannels, besprinkled with salt or mustard-flour as a local stimulant. With the same intention, a quart of pretty warm water with some brandy should be injected into the stomach, and a large injection of the same kind, or of hot air, should be thrown up the bowels. And these injections should be withdrawn by the stomach-pump, and renewed every five minutes or so, with the view of imparting heat to the vital organs, and maintaining their temperature at 98°.

Secondly. The lungs to be inflated with air, at the temperature of at least 98°. The temperature might probably be increased to 120°, or more, with advantage; but experiment must determine this, as well as the substitution of air richer in oxygen. The protoxide of nitrogen, I should advise a trial of, which is richer in oxygen, in the proportion of 8 to 3, than the air of the atmosphere. It is, too, more soluble in the blood than the oxygen alone, or in combination as it exists in the atmosphere; and hence, I believe, its more particular exciting character: but, in all cases, it should not be alone that I would recommend it, but in admixture with atmospheric air. If found, upon experiment, to be an useful agent, which there can be little doubt, I think, of its proving, it could be easily rendered available for general use, by compression.

Thirdly. Bleeding from the jugular vein is another expedient necessary, to relieve the brain and heart, or gorged lungs; and with the further intention of aiding in absorption of the air from the lungs and fluids from the stomach and bowels. Magendie having proved, by experiment, that absorption from all the surfaces, and particularly from the lungs, was carried on in the inverse ratio with distention of the blood-vessels. If the blood on opening the vein will not flow, it might probably be withdrawn by the aid of the stomach-pump, inserting a tube down the descending vessel; and after withdrawing eight or ten ounces of blood, or more, as experiment upon animals might determine, substituting for it some warm arterial blood from a dog, sheep, rabbit, or other animal, or perhaps the warmer blood of some of the fowl tribe might be preferable. Or if blood be not available, warm wine and water, or other stimulant; a weak solution of common salt might be tried, which was said to have been so often successfully practised in the cholera. The same might also be injected into the femoral veins.

Fourthly. Electricity, by the agency of the galvanic apparatus, is another important and highly-valuable expedient; not, however, in the way it is too commonly practised, but the respiratory nerves should be cut down upon and exposed, and the electrical current transmitted along their denuded surfaces. Or the current might be transmitted direct through the lungs, by passing the positive conducting wire, insulated by a coating of caoutchouc wound round it, down the trachea, and passing the other conducting wire up the intestines. The effect of passing a current down to the heart along the course of the jugular vein might also be tried.

Lastly. A simple means suggests itself to me, for expeditiously heating the air for inflating the lungs; which is, by coiling a tin or lead pipe of a quarter inch bore, and thirty or forty feet in length, round and round, within a tin saucepan, and pouring therein hot or boiling water, as the case may be, to give it the required heat; that the air circulating through the pipe, and connected with the inflating bellows, may be maintained at 100°, or the temperature required. Or the water, where boiling water is not at hand, might be expeditiously heated, in a vessel constructed upon the principle of Jones's Etna, by surrounding the vessel containing it with burning alcohol, thus: and the body of

the sufferer might be heated by the same means, the combustion of spirit, where neither fire nor a bath is at hand.

Extract from the letter of acknowledgment for the above communication, which I had the honour to receive from the Secretary to the Humane Society:—"The greater number of the means you have kindly recom-

mended for the restoration of asphyxiated persons, have been long used by the medical assistants of the society. While the committee take leave to suggest the necessity of a reconsideration of that portion of your paper, recommending the transfusion of the blood of animals into the human subject;* such a proceeding, they are informed by the medical members, would be highly dangerous, if not fatal, since there is a great diversity in the sizes of the blood corpuscles of different animals." As this is a subject truly worthy of consideration, and to which I am incapable of offering any reply, I shall be much obliged to any of your correspondents affording the necessary information. I am, Sir, your very obedient servant,

C. Searle.

Bath, Feb. 5, 1841.

CASE OF POISONING BY ARSENIC.

To the Editor of The Lancet.

Sir:—If you consider the following case sufficiently interesting it is at your service. I am, Sir, your obedient servant,

M. D. Thompson, M.R.C.S.L.

Stalybridge, Feb. 24, 1841.

On the 16th inst., about half-past eight o'clock, A.M., I visited Edward Higginbotham, of this town, a tall, slender youth, about 18 years old, and of a cachectic appearance. At the expiration of an hour and a half from this period, I again visited him. When I first saw him he was cold, pulseless, restless, and complaining of cramp of the upper and lower extremities; his countenance was sunken, and the anterior part of the neck and chest livid; his tongue deviating little from the natural appearance; his abdomen appeared to be fuller than usual, but he complained of no tenderness on pressure being applied to any part of it.

The youth is an orphan, and not residing with his own relatives. The female of the house, where he was residing, stated, that he was attacked with vomiting and purging about two o'clock this morning, and that the vomited and purged matter was of a dark colour: the patient himself then alluded to the contents of a vessel near to him, and said, "This is what I have vomited." It was a thin fluid, of a dark green colour. None of his motions could be obtained for inspection: no cause for the disease was assigned; but, on the contrary, I was informed that he had taken nothing calculated to disorder him. After this investigation of the case, I prescribed what I considered to be necessary for him.

When I saw him the second time, he was much worse; the remedies previously prescribed for him had not been administered. Immediately after this the patient died.

During the period I visited him, he had symptoms of labouring under the collapsed stage of the English cholera; but from the great lividity of the anterior part of the neck and chest, the unseasonable period of the occurrence of the disease, and especially the rapid manner the patient was destroyed, I inferred that it was probably a case of poisoning by arsenic.

Application, relative to the case, by a constable of the town, was forthwith made to the coroner, whose order, authorising me to inspect the body, I received in the evening of the same day.

Mr. Barker, a surgeon of this town, and myself, executed the inspection twelve hours after the death of the patient.

The body was spare and emaciated; the integuments of the neck and anterior part of the chest, the arms, as far as each elbow; the lateral parts of the chest bounded on each side, anteriorly and *inferiorly* by the cartilages of the false ribs; the whole of the back part of the body, as far as the knee, except the nates, and opposite to the dorsum of each scapula, were copper-coloured. This colour was not in elevated spots, resembling those of secondary syphilis, but it was diffused, without any apparent elevation, over the whole surface of the parts alluded to.

Dissection.—The sinuses, membranes, and blood-vessels of the brain, and the brain itself, were gorged with black blood, generally coagulated. The brain itself was so much engorged, that when the upper part of each hemisphere was removed by a scalpel, and the cineritious and medullary parts exposed, the medullary parts presented a spotted surface, as if sprinkled over with black ink. The spots, on being removed by the blade of a scalpel, quickly returned.

The lungs were much engorged with black blood: the inferior lobe of the right lung was so much so, that it was completely consolidated. The stomach and small intestines contained a thin fluid, of a dark green colour; the cæcum and the ascending and transverse parts of the arch of the colon, a fluid resembling thick gruel. There was a bright redness, being deeper in some parts than others, of the whole of the villous coat of the stomach, duodenum, and rectum; upon which, with the minutest scrutiny, not

* The recent researches of Bischoff have shown that the poisonous effects of the blood of one genus or class of animals injected into the vessels of another, depends rather upon some peculiarity in its fibrine than upon the size of the blood corpuscles; and that if the former be removed, the blood may be harmlessly employed in transfusion. We should, however, nevertheless, be little disposed to hazard the injection of the blood of a quadruped into the veins of a human being even with this precaution.—Ed. L.

a particle of any powdered substance was discernible.

The remaining viscera and other parts of the body were examined, but they presented no marks of disease; in fact, the soundness of all the viscera was remarkable.

Analysis.—The stomach and duodenum (except some parts of them, preserved in spirit, in readiness for further scrutiny, if necessary,) were cut into small pieces, and decocted, in an evaporating dish, for nearly half an hour, with the fluid contents found in the stomach, and small intestines; when cold, they were filtered through gauze, and subsequently through paper, and then acidulated with a little acetic acid.

A portion of this solution, tested with sulphuretted hydrogen, threw down a precipitate of a sulphur-yellow colour; another, with the ammoniacal nitrate of silver, a yellowish white precipitate, darkening on exposure. Each precipitate, after the necessary preparation, yielded, on being put, with a little black flux, in an arsenical tube, and subjected to heat, metallic arsenic.

A portion of this solution, with diluted sulphuric acid, and iron-filings, were put into a quart glass bottle. The gas generated therein was permitted to escape through a glass tube, having a small bore, and pointed at the upper extremity; when ignited, it burned with a white, yellowish green flame, and emitted a strong garlic odour. A tube, having a bore about half an inch in diameter, was placed over the flame, forming, with the other tube, an angle of about forty-five degrees. In this tube, for a period, the flame continued, and, consequently, metallic and the oxide of metallic arsenic were there deposited: the oxide was removed from the tube, then the metallic arsenic subjected to the heat of a spirit lamp until oxydated, when it was removed thence, mixed and put with the other oxide and a little black flux into an arsenical tube, subjected for a few minutes to the heat of a spirit lamp, the metallic arsenic was reproduced.

Other experiments with the fluid were tried; but considering these decisive and conclusive proofs of arsenic, I abstain from alluding to them. The tests made use of in these experiments were ascertained, previous to using them, to be free from impurities.

It may be necessary to state, that the day subsequent to the patient's death, a paper marked "arsenic poison" was found in one of the pockets, and a white powder loose in both of the pockets of his waistcoat. The powder was subsequently analysed, and detected to be the oxide of arsenic.

ON OPENING SCROFULOUS ABSCESSES BY LEECH-BITES.

To the Editor of THE LANCET.

SIR:—The serious and lasting deformity usually resulting either from the lancing or bursting of scrofulous tumours during childhood, must necessarily be attended with considerable regret by the beautiful and interesting female, when so lamentably affected. Indeed, it is often painful to observe the attempts made to conceal that which is conceived to be the mark of stigma of some foul and loathsome disease; and probably this dread is not altogether without foundation, knowing the prejudice which exists against these unsightly scars, many persons refusing a matrimonial alliance in consequence of such appearances alone. I have bestowed some attention towards preventing so frightful a deformity, and happily with success. When the abscess is fully matured, I have two or three leeches applied on the most prominent and depending part. After the leeches are removed, I order a fomentation of warm water to be continued for some time; after which the heat is to be kept up, by means of a warm bread-and-water poultice, not too small, and to be changed frequently. The confined matter thus escapes from the leech-bites gradually and regularly; the wounds inflicted being of sufficient calibre for the purpose, the discharge always being thin in scrofulous swellings. After the perfect evacuation of the matter, nothing further remains to be done as a local remedy. Frequently, the running will not commence until the second or third day from the application; but it is necessary to persevere with the fomentations and poultices, the leeches being seldom required a second time. Of course, a proper and correct dietetic plan is pursued, during which I prescribe occasional doses of rhubarb, with magnesia, as a gentle aperient; and the iodide of potassium as a daily alterative, the quantity according to the age and constitution of the patient. So soon as the abscess indicates the necessity of giving exit to the matter collected, I invariably have the leeches applied; for by waiting longer, the tissues become so altered in structure, so unhealthy to act upon, that extension of the wounds and scars will be the consequence. This it is requisite to note; for much of the evil is here brought about by those who open the tumour with the lancet, having delayed the operation too long. In opening, or permitting these tumours to burst of themselves, the wounds become more or less extensive, spreading unequally in various directions; which the sudden deprivation of contents, by the usual means, only increases. Besides, they have a disposition not to heal kindly; and leave behind chronic, ugly, thick, elevated, callous

puckerings of the integuments, which neither time or art can ever efface. I am, Sir, your obedient servant,

THOMAS SMETHURST, Surgeon.

Spencer House, Ramsgate,
March 1, 1841.

SHOWER-BATHS IN LUNATIC ASYLUMS.

To the Editor of THE LANCET.

SIR:—As your correspondent "Philanthropos," in your valuable Journal of the 27th ultimo, has called the attention of the profession to the use of shower-baths in lunatic asylums, I beg leave to inform you that, for some years past, I have dismissed the use of the cold-water shower-bath, my patients not having derived any benefit from it: on the contrary, when it was used in melancholic cases, I observed an increase of the symptoms, and an aggravation of mental disease, with less physical power to resist it. All cases of mental disease benefitted here have benefitted without it; and I cannot think that any have suffered from the want of it, when my returns show that, out of fifty-four patients admitted, twenty-six have been cured; four only have died; showing a large proportion of cures and few deaths. The most successful mode of treatment of insanity can alone be judged by the returns of the cures and deaths, and the mean duration of treatment. The question is not whether "restraint" or "non-restraint" be used. Restraint being a part of the treatment of mental disease, it should be left to the judgment of the medical superintendent of an asylum to direct its use, and not to the governors and magistrates, unless they are capacitated by a previous medical education. The public will be able to judge of the most efficient mode of treatment by the returns of cures and deaths.

The decision of the Committee of the House of Commons to inquire into the management of the County Lunatic Asylum at Hanwell appears to me an important one, inasmuch as a rule of practice will, doubtless, be established thereby; you will, therefore, confer an act of kindness upon the public and the profession by moving for the returns of all licensed houses, and also of all county lunatic asylums in Great Britain and Ireland. I am, Sir, your obedient servant,

SAMUEL MILLARD.

Whitchurch Asylum, near Ross,
March 3, 1841.

P.S.—In THE LANCET of the 13th ultimo, it is stated that the cost per week of pauper lunatics at county asylums was 7s. each. I suppose this does not include the interest on the building-fund, which should be added, when the real weekly cost will be doubled.

OPERATIONS FOR STAMMERING.

To the Editor of THE LANCET.

SIR:—I beg to submit to your notice a brief account of my recent proceedings relative to the cure of stammering, premising that I am at the present actively engaged in collecting materials for a more lengthened explanation of my views on the subject.

In the practice of my department of the profession, it has been usual with me to explore the condition of the mouth and pharynx in all cases of deafness committed to my care. I have thus discovered that a large number of patients suffering from deafness, are affected with enlargement of the tonsils or uvula, and an irritable condition of their investing membrane and of the pharynx generally. It has been my constant practice, when I have considered these states as at all contributing to the imperfection of hearing, to remove either tonsils or uvula, or portions of both, according to the nature of the case, with the most marked and immediate benefit, as far as the hearing may have been concerned.

In December last it occurred to me to operate in this manner on two patients. They were at the time of treatment so deaf, that I did not address my questions particularly to them but to their parents, so that I was unaware of any impediment of speech in these instances. Soon afterwards, however, as the cure of the deafness advanced, I learned from the parents that both children had been stammerers from infancy, and as much to my surprise as gratification that the cure of stammering had immediately taken place on the excision of the tonsils. At the time at which I write, the subjects of these cases remain free from any impediment, though their stammering is represented as having previously to the operation been very decided. I had before this remarked, that persons with enlarged tonsils were affected with thick and imperfect speech, for which I had often, during the last year, practised excision with the happiest effect in restoring the voice to its original clearness. Since the cases above noticed, I have operated on upwards of forty individuals, all of whom have immediately felt themselves relieved of their impediment. Many have seemed wild with joy, or have shed tears of pleasure, at the instantaneous restoration they have enjoyed. After the operation, the difficulty of speech which remains is referred by the patients to the lips. They express themselves wholly free from the original difficulty. Something must be allowed for the long misuse of the organs of voice, and the existence of habit in rendering the voice less perfect than in the natural state. In fact, after their relief, patients

have yet to learn the proper use of the vocal apparatus.

I have performed the operation by means of a scissors, scalpel, and tenaculum, without any serious hæmorrhage, and with but small amount of pain, which has appeared somewhat greater in the case of the uvula than of the tonsils.

In reflecting upon the subject, the explanation I have at present to offer is, that to produce stammering the dorsum linguæ, the palatine arches, velum pendulum palati and uvula, approximate so completely together, as to leave no room for the expulsion of air from the larynx. In a person who stammers, no air issues from the mouth during the abortive effort to speak; but it does so as soon as the patient is relieved from this state, so as to produce sound. The most violent contractions of the abdominal muscles can be seen attempting to force up the diaphragm, and expel the air. Sometimes all the respiratory muscles, and even those of the body generally, are thrown into violent spasmodic action, or the individual grasps some near object to assist the expulsive effort. In some cases, where there is nothing abnormal about the tonsils or uvula, I find a great congenital narrowing of the entrance from the mouth to the pharynx.

I submit that the operation, which I believe I am the first ever to have proposed or performed specially for the cure of stammering, relieves this malady, by making, as I excise the tonsils or uvula, an aperture in the valvular obstruction I have described, as being formed by the joint agency of the tongue, palatine arches, and soft palate. You will perceive that the principle of my operation is widely different from that ascribed to Professor Dieffenbach; and since practised, it is said with success, in France, by MM. Amussat and Philips, and in this country by Mr. Bennett Lucas. This operation appears to me to rest upon the principle, that the tongue is chiefly concerned in the production of the voice; whereas I would ask, does not this organ serve rather to modulate the voice after it has issued from the pharynx, while in stammering it is the first production of sound which occasions the difficulty, rather than its subsequent modulation? I am, Sir, yours most obediently,

JAMES YEARSLEY.

29, Sackville-street, March 8, 1841.

*** We must confess ourselves somewhat at a loss to comprehend wherein Mr. Yearsley's discovery consists. The removal of enlarged tonsils, which by their bulk occlude the openings of the Eustachian tubes, in order to relieve deafness, is as old as the hills, and a daily operation, of very trifling moment, in the hands of every surgeon. To snip off the uvula, is still more insignificant. To discover that, after this trifling operation, stammering (of what kind the author does not specify) in one or two cases has been cured, must have been, unquestionably, very gratifying both to patient and operator. But we are far from prepared to admit the assumption, that the removal of the tonsils and of the uvula is, *therefore*, an operation calculated to remedy stammering.

M. Dieffenbach's operation for stammering is both extremely severe and dangerous to life; it consists in making a transverse incision across the root of the tongue, either simply, or in removing at the same time a wedge-shaped portion of that organ. A writer on this subject attributes to Dieffenbach the following nonsense, for which we are little disposed to give him credit:—

"He therefore reasoned that in this infirmity the disturbance in the mechanism of speech must originate from a dynamic cause; viz., from a spasmodic state commencing in the trachea, but more especially in the rima glottidis, from whence it extends to the tongue and the muscles of the face and neck: consequently he came to the conclusion, that an ipterruption of innervation in one of the parts affected might be followed by an alteration of the nervous influence, and therefore by a suspension of the disturbance in the mechanism of speech. He thought that this alteration would be most certainly obtained in the nervous action of the vocal organs, by dividing the root of the tongue right across, and through its whole thickness."

So that the great Dieffenbach, according to the innocent prattlings of this self-appointed eulogist, cuts across a man's tongue for the purpose of dividing its nerves, "of producing an alteration of the nervous influence," forsooth! *proh pudor.*

PRURITUS ANI.

To the Editor of THE LANCET.

SIR:—Having been afflicted myself with pruritus ani, and having had several cases of the same complaint under my care, I have cured myself, and effected cures in others, by the following treatment, viz.:—

℞ *Oxide of mercury*, ℥j;
Simple cerate, ℥j. M ft.

A piece the size of a nutmeg to be applied to the anus every night, and the following draught to be taken every other morning:—

℞ *Epsom salt*, ℥iij;
Milk of sulphur, ℥ij;
Water, ℥iss. M.

Yours, &c. W. H. R.

Kingsland.

A LETTER
ON
MEDICAL REFORM;
AND ESPECIALLY ON
The Question,—What would be the Effect of a full Measure of Medical Reform, including the Incorporation of the Profession into ONE FACULTY, *upon existing Institutions?*
ADDRESSED TO THE
RIGHT HON. SIR ROBERT PEEL, BART.
BY
MARSHALL HALL, M.D., F.R.S.
L. & E., &c.

"Genuine Reform is Genuine Conservatism."—Observations on Medical Reform, by J. KIDD, M.D., Regius Professor of Medicine in the University of Oxford.

SIR:—The question on which I take the liberty of addressing you, is not a party question; it is rather one which involves the good of all, Whig or Tory, rich or poor, indiscriminately. It is especially one which involves the good of a noble and beneficent profession.

I am confident that you, Sir, cannot be indifferent to *such* a question; and I am equally confident that, if you approve of the line of argument which I am about to lay before you, you will give the cause which I advocate the benefit of your great talents and influence in Parliament.

I beg to state, that the subsequent observations are made most conscientiously. No one can admire, more than I do, the splendid institution in Lincoln's Inn-fields; its museum, its library, its lectures, and, above all, its open doors and diffusive usefulness, are honourable to our science, to our country, and to the age in which we live. This institution wants but representative and responsible councils, and absolute equality of privileges amongst its members, to render it worthy of our perfect esteem.

No one *would* admire more than myself the Royal College of Physicians if, instead of being an institution of a dark age, with inflictive by-laws of still darker councils, it shed a fostering care over all its members alike, and without distinction, governing by just and equal laws, encouraging scientific inquiry, rewarding scientific merit, &c.

It is no part, therefore, of the objects of the sincere medical reformer to injure existing institutions; their object is rather to introduce a perfect and just reform in them, whilst they legislate on just and generous principles for the whole profession, and not less for the public at large.

It is now admitted by every one, that some reform in the medical government in this country is absolutely necessary. If a doubt remained on the mind of any of our legislators on this point, it would be removed by the following fact:—

There are, in the British dominions, no less than *nineteen* bodies or medical corporations more or less empowered to grant diplomas, or the licence to practise medicine; and yet, *not one* of them has the power to license to practise *all* its branches, or *any one* of them over the length and breadth of the land!

If an individual were to take the best *medical* degree in these kingdoms—which I believe to be that of the University of Edinburgh—and were then to pass or repass the Tweed, he would not be *entitled* to practise even as an apothecary; far the greater number of physicians now practising in the country districts are doing so without legal sanction. If the graduate of Edinburgh come to London, he is not entitled to demand examination for the *fellowship* of the Royal College of Physicians; this right or privilege being injuriously restricted by the fellows of that college to graduates of the English universities. But, on applying to this learned body for examination, according to law, on passing his examination (for the second time) satisfactorily, on paying a considerable fee (I believe £60), he is degraded into a class of licentiates or "*permissi*," and is *uncntitled* to enter within the college walls, to use its library, to examine its museum, &c.; and is *ineligible* to its lectureships, to the various offices of its government, &c. &c.!

Every generous heart *must* be touched by a sense of injustice and infliction—*must* recoil and sicken, at this simple detail.

The Royal College of Surgeons does not even grant a licence to practise, and its councils are self-elected and irresponsible.

The Society of Apothecaries, with power to grant a licence to practise, does not confer a diploma, which, generally speaking, entitles its possessor to be eligible to the office of surgeon to an hospital or dispensary.

Other remarks of the same kind might be made. But these are sufficient to demonstrate that some generous and liberal and diffusive legislative enactment is imperatively required, which may be applicable to the *whole* profession, and to the *whole* of the British dominions.

It appears to me, and to many with whom I have had the advantage of frequent intercourse and conversation on this subject, that it is desirable that the whole profession should be united into one community or faculty, with uniformity of qualification, with equality of privileges, rights, and immunities, without invidious and injurious distinctions, and with a government at once representative, responsible, and protective.

This faculty should examine *all* candidates for the licence to practise in the best manner—*practically*, in regard to their knowledge

of anatomy, medicines, disease, and *publicly*. The admitted candidate should not be a *permissus only*; he should be a *bonâ fide* member or fellow of the faculty. Our object should be, not to degrade, but to elevate the medical profession and character. Being a member, he should possess a member's privilege of voting on all occasions, and should himself be *eligible* to every office of honour and usefulness in the faculty; to which he should also be *responsible* for the integrity of his professional conduct, and to which he should look with confidence for *protection* in his professional rights.

How would our noble and benignant office of attendance on the sick be raised by such an institution? How much more self-esteemed, respected, and trustworthy would the members of our profession become? How much would the *public*, the rich, and the poor, be benefitted!

Allow me now to approach a delicate question. What would be the influence of such an institution on the existing medical corporations? Would it be injurious to them? Would it be destructive of them? I have no hesitation in affirming, as my opinion, that it would, under just regulations, be highly beneficial to them.

There is no profession whose members are more desirous of honourable distinction than the medical. To this day, the Royal College of Surgeons confers no privileges, no rights, no immunities, no protection on its members. It confers *honour* only! And yet, I need not say, how it prospers. It has no want of funds; its museum and its library are of the most splendid character. The usefulness and the influence of this college was not impaired when the power of licensing to practise was conferred by Parliament on the Society of Apothecaries. And why? Because the members of our noble profession are not content with a mere licence to practise—with being mere "*permissi*." They possess a noble love of honour and respectability; and though possessing the *right* to practise, they have sought the *honour* of belonging to the Royal College of Surgeons!

But what college has withered,—what college has become impoverished "almost to bankruptcy,"—amidst this prosperity of the Royal College of Surgeons? The Royal College of Physicians! And, again, I ask the question, Why? Because *its* laws are unequal; because its proceedings are full of gall and bitterness and heart-burning; because men of honourable minds will not willingly submit to be—mere *permissi!* To the honour and credit of our profession I say this.

It has been by *compulsion* when the graduate of Edinburgh has presented himself for examination and degradation by the Royal College of Physicians. It has been with a keen sense of injustice that he has afterwards passed its closed doors, and received its insulting *invitations* to its soirées and lectures.

But let the admission into the Royal College of Physicians be equal and honourable; let all invidious and iniquitous distinctions cease; let there be no differences but those which education, industry, talent, and worth of every kind, *must* entail on their possessors; and then this institution, too, will rise out of its present state of poverty and degradation, and thrive alike honouring and honoured!

The members of the faculty will naturally be divided into those who will be general practitioners and those who will be consultants—physicians *or* surgeons. The *public* has created *these* distinctions, and the public will maintain them; the physician will seek the honour and the gratification of belonging to a *reformed* College of Physicians, representative and responsible, governing and governed by equal laws, conferring equal privileges, purified from unjust and inflictive distinctions, pursuing the noble cause of our science. The surgeon will, in like manner, resort to the College of Surgeons; *both* colleges will prosper in wealth, in honour, and in well-doing.

Can any further proof of the truth of what I have stated be required, than that afforded by the practical facts in regard to the Society of Apothecaries, and their new powers, in reference to the College of Surgeons? If so, let us look at the Royal Society, and observe how eagerly the honour of belonging to that learned body is sought by the members of our profession; let us look at the Royal Medico-Chirurgical Society, and let us remark how it also prospers. And why do these societies flourish? Because the admission into their ranks is *honourable*—is honourable to *all*: because all so admitted are fellows, with equal rights, equal privileges: because they are not *permissi* societies: because to be admitted amongst their number is an object of just and legitimate ambition.

As long as the Royal College of Physicians shall remain a *permissi* college, so long must it be a source of feuds, of dissension, of just dissatisfaction; so long will it reap its just and retributive recompense in degradation and poverty; so long will it, in my opinion, be without a *just* honour to bestow; for, at the most, a licentiate can only rise from the class of the degraded to that of the degrading, and whether this be an *honourable* distinction, I leave it to the upright and just to determine.

There is another evil attendant on the present condition of the Royal College of Physicians. With the hope of being made fellows, the *permissi* have become mean and sycophantic in their conduct. There are few who can say, with Sir Humphrey Davy,—

"To me there never has been a higher source of honour or distinction than that connected with advances in science. I have not possessed enough of the eagle in my character to make a direct flight to the loftiest

altitudes in the social world; and I certainly never endeavoured to reach those heights by using the creeping powers of the reptile, who, in ascending, generally chooses the dirtiest path, because it is the easiest."*

I think I have observed another disposition to degrade the already-degraded licentiate, by admitting into their number persons of inferior character, and of very *dubious* diplomas.

I will conclude these observations by a question:—Did the licentiate of the Royal College of Physicians ever add that title to the list of his honours on the title-page of any publication? No! But he has invented another—a subterfuge—and we do see, occasionally, in such lists, "*Member* of the Royal College of Physicians!" I need scarcely draw the obvious conclusion from all this,—that all have regarded the appellation of licentiate as an indignity. Shall this infliction—this injustice continue?

There is *one* institution to which I now advert with strangely-mingled feelings, it is that of the Society of Apothecaries.

This *new* Society—new, at least, in its powers—I boldly assert, has done more for the real and substantial improvement of the profession than all our other institutions put together. I say this to its indelible honour. It has raised the scale of medical education and consequent acquirement, and in proportion it has raised the utility, the respectability, the trustworthiness of the profession and its members.

But the Society of Apothecaries is a *trading* society. It has mingled the trade in drugs with the profession of medicine; and in this it has done as much to degrade the profession, as by raising the standard of education it has done to raise it.

I presume the trade and the profession of medicine *must* be separated. Our profession never can be respectable or respected, until that separation has been accomplished. The Society of Apothecaries cannot, therefore, possibly subsist in its present amphibious condition. Let its most distinguished members become active members of the new faculty; they will, doubtless, soon be found occupying a place in its councils.

I may here mention a fact, which may throw a ray of light on the constitution of the council of the new Faculty of Medicine. The council of the Royal Medico-Chirurgical Society consists of a certain number of members; of which one-third are physicians, one-third surgeons, and one-third general practitioners. The council of the Faculty of Medicine may be constituted on a similar *principle:* another mode of removing *needless* distinctions in our profession, an object certainly fraught with general good, however opposed to the selfish feelings of the mean and sordid.

I have thus shown, by an appeal to *facts*, how the existing medical institutions may be made more honourable and prosperous, instead of being injured, by the proposed incorporation of the profession into one faculty. It was this conviction which induced me to propose, at a meeting of the delegates of the profession, the following resolution:—

"That this conference respects, in the fullest manner, all existing institutions, as far as is compatible with incorporation of the whole profession, representative government, uniformity of qualification (tested by examination), and equality of rights, privileges, and immunities."

It was from a feeling that the present difference in the Royal College of Physicians, between the fellows and licentiates, was at once injurious to the college itself, and to the licentiates, that I afterwards proposed the following resolution:—

"That this conference, being opposed in principle to all needless distinctions in the profession, as to rights, privileges, and immunities, view, with especial disapprobation, the long-continued distinction in the Royal College of Physicians, between the fellows and licentiates, which they regard as injurious, and the source of much disunion between the members of that department of our profession."

I have only to add, on this subject, that a reform in our present institution is implied, of course, and that this reform must involve the adoption of the principles of reform in general; principles which may be expressed in a few words—representative and responsible councils, equal honours, equal rights, equal privileges, equal immunities.

To become a member of the faculty must be incumbent on all. The diploma of the faculty will convey the licence to practise, with equal rights, &c.; but it will not convey any honour beyond that of being enrolled amongst the members of a highly-respectable profession, made still more respectable by higher qualifications. Honours must be sought from the other existing, but *reformed*, institutions, which will, indeed, come to be regarded as the special institutions of honour in our profession.

The schools and universities will be unaffected, the faculty being an institution for examination and licensing only.

The druggists should be incorporated amongst themselves, and be at once prevented from prescribing, and be protected in the sale of drugs; the members of the faculty would be prohibited from the sale of drugs, and be protected in their practice from the encroachments of the druggists.

The members of the Society of Apothecaries must make their selection between the trade in drugs and the profession of medicine.

As to *quackery*, it is to medicine what *superstition* is to true religion. The injury it inflicts is sometimes negative rather than positive. It is true, it sometimes "amuses the

* Last Days of a Philosopher, p. 211.

patient, whilst nature cures the disease;" but it also, sometimes, like the *ignis fatuus*, leads the deluded patient onwards, until, his malady assuming an irremediable character, he falls a victim to his delusion. But, in other cases, the very remedies themselves induce fatal effects.

The only protection against these consequences is to instruct the public, and to convince them that as a man must be a good mechanician to repair an engine, so the physician must be an anatomist and physiologist to be enabled to treat diseases with safety and success. I have the honour to be, Sir, your very obedient humble servant,

MARSHALL HALL.

London, Feb. 16, 1841.

P.S.—I observe, in the resolutions passed at a recent meeting of the chemists and druggists, that that respectable body are about to petition Parliament to uphold their "*right to prescribe.*" It will be a question, doubtless, with the Legislature, whether these gentlemen may be allowed to combine with this *right*, the *right* and peculiar privilege of being ignorant of anatomy and diseases; whether they may enjoy, at the same time, perfect immunity from the *education* and the *examination* which the Legislature has wisely appointed for the *practitioner* of medicine.

THE LANCET.

London, Saturday, March 20, 1841.

THE *College of Physicians* has at length replied to the proposals of the Medical Delegates, and in a manner quite as conclusive and satisfactory as could have been desired. The waiters upon Providence, and the believers in the good intentions of the Corporations, have now no excuse; they can deceive themselves no longer. The *Worcester* Council will, perhaps, see the necessity of going a step "further;" for the London College of Physicians—certainly not the least liberal of the London Corporations—has rejected the two fundamental principles upon which all Medical Reformers are agreed. They repudiate the incorporation of the Profession in one Faculty; and, as explicitly as politely, denounce the representative principle. Sir HENRY HALFORD's letter is a mirror of curiosity in its way:—

College of Physicians.

Sir:—Having laid before the College of Physicians the opinions of the Medical Delegates, on certain leading points connected with the subject of medical reform, I have to communicate to you that this College cannot sanction any measure which contemplates the amalgamation of the existing orders of the medical profession into one faculty; and the consequent extinction of that salutary division into physicians, surgeons, and apothecaries, which has, in the opinion of the College, contributed for so long a period to promote the usefulness, and uphold the scientific character, of the profession.

In reference to the proposal to form a council in each kingdom, to be elected by the votes of the whole profession, the College is of opinion, that by the means proposed such a body could not be constituted as would command the confidence of the profession, and promote its harmony and public utility.

The College is most anxious to adopt such measures as will ensure a high grade of education, and uniformity of qualifications, for physicians, as well as protect the interests of that branch of the profession in the three kingdoms; and it will cordially co-operate in any proposal to the Legislature, having a similar object, with respect to surgeons and to apothecaries. I am, Sir, much yours,

HENRY HALFORD.

March 9, 1841.

To Charles T. Carter, Esq., Hon. Sec. of the Medical Delegates, &c. &c.

Mr. BRASS, a great authority, significantly remarked to his friend, DICK AMLET, "Some folks we mistrust, because we do "not know them; others we mistrust, *be-* "*cause we do know them;*" and for one of these reasons, we confess that we never had much confidence in the London Corporations, or in the self-reform to which they have ostentatiously promised to be parties. There was something hollow in all their protestations. The College of *Physicians* is "most "anxious to protect the interests of *that* "*branch* of the Profession in *the three king-* "*doms.*" Disinterested Fellows! They cannot "protect" themselves; their power is lost in London, and for seven miles around; they are "poor, even *to* bankruptcy," and are yet most anxious to protect the physicians of the "three kingdoms!"

The College cannot sanction any measure which contemplates "the *amalgamation* of "the existing *orders* of the Medical Profes-

sion into *one* Faculty!" Upon their President's honour! The College cannot herd with the General Practitioners, although they may have as high "a grade of education," and the "uniformity of qualifications" required from the candidates of the broken-down institution in Pall-Mall.

The President, with a characteristic audacity of assertion, in a rigmarole sentence, declares that Councils "*elected by the votes of the whole Profession*" would not be constituted so as to command the "*confidence of the Profession.*" If the Councils were *elected by the whole Profession*, we should have taken the election as *primâ facie* proof that the members *had* the confidence of the Profession. According to the College, it would be the reverse. The "whole Profession" would inevitably elect representatives who could not, and did not, command their confidence! If a candidate did *not* possess the confidence of the electors, his return would be secure! Upon this hypothesis, what does Sir HENRY HALFORD see so dreadful in the ordeal of an election? *His* claims to want of confidence are long established, overwhelming, irresistible, infinite. *He* would be chosen by acclamation.

Who, in the present day, are the gentlemen at the head of the College of Physicians? Who are the persons that consider themselves entitled to proclaim that Councils elected by the whole Profession could not be constituted so as to command the confidence of the Profession, and promote its harmony and public utility? We do not wish to say anything personally offensive or harsh of the Censors; but what have Dr. GEORGE BURROWS, Dr. BABINGTON, Dr. TODD, or Dr. JOHN WRIGHT, done for medical science? What have they to set off against the achievements of many of their contemporaries? In what do the peculiar merits of Dr. FRANCIS HAWKINS consist? Is Sir HENRY HALFORD anything better than a broken-down courtier? With all the spangles in which he shines, like a faded star (theatrical), and the trappings of his office, what has *he* to oppose to the interesting investigations of Mr. CEELY, a general practitioner at Aylesbury, whose researches will descend to posterity, to say nothing of the claims of other distinguished Reformers? What has *he* done for the individual welfare of the Profession, comparable with, for instance, the labours of Mr. ROBARTS, of Burnham, and others of his brethren whom we might name? A Council that had the confidence of the Profession, would discover, encourage, and reward merit. Has the College of Physicians done this in the present age? Do any of the persons who have promoted science, or the public good, hold high offices in that effete Corporation? All the men of approved merit and eminence would be elected on the new Councils; and it is certain that the "whole Profession" could not be less felicitous in the choice of officers than the present Corporations.

With regard to "orders" in the Profession, we conceive that the natural orders and distinctions founded upon talent, experience, merit, and high character, can never cease in a profession which, as civilisation advances, will open to its cultivators—always among the foremost benefactors of mankind—higher degrees of glory. In the mean time, the division into general practitioners and consulting practitioners will continue; it is natural and convenient, as well for the public as for the Profession. But it is absurd for men who are below mediocrity, and without experience, to set up as consulting physicians, because they have been educated at St. Andrew's or Oxford. We can only acquire a knowledge of disease by deep study; we can only interpret the phases through which it passes, by following innumerable cases from their commencement to their termination; and obtain skill in the appliance of remedies, whether mechanical or physical, by practice. Is it not absurd, then, to enter the profession as a consulting physician, to pretend to advise practitioners of great talent and experience in difficulties, and in uncommon cases, without several years of preliminary study and the qualifications that can be acquired in no other way than by the study of common cases as

they occur in general practice? It is for the advantage of the class who, at the present day, burst on the public like MINERVAS ready armed, but unknown, unrecognised, to begin by general practice. They now get nothing to do during the first fifteen years of their lives, and will not begin as curates because they expect to be bishops.

The absurd and odious connection with the Apothecaries' Company must be, and will be, abolished. Consulting physicians and surgeons will then be selected by practitioners from their common ranks; and, created by the hand of nature, by hard and successful study, or by fortunate circumstances, will enjoy their stations with advantage to the public, and with the applause and satisfaction of the Profession.

Remarks on the Surgical Practice of Paris. Illustrated by Cases. By W. O. MARKHAM, M.D. Royal 8vo.

CONSIDERABLE allowance must be made for the slight manner in which these remarks upon the surgical practice of Paris have been put together; for the author, as he informs us in his preface, had no other view, at the time of writing them, than his own amusement and instruction. He was encouraged to publish them in their present form, in consequence of the gold medal of the University of Edinburgh having been awarded to him, for their production, at the graduation of 1840. Our author does not attempt to draw any detailed comparison between the surgery of France and England,—a task which, for its judicious and satisfactory execution, would require a much longer residence in Paris than he was able to make, as well as a more extended acquaintance with the subject than he ventures to claim,—but seeks rather to lay before his reader a tolerably fair and impartial account of such of the more remarkable cases which fell under his observation, during a stay of a few months in Paris, as might serve to illustrate the differences which exist between the principles and practice of English and French surgeons. Acting upon this limited view of the subject, Dr. Markham has related a great number of cases of various surgical diseases, which he witnessed, under the care of Messrs. ROUX, Blandin, Sanson, Velpeau, Lisfranc, and several others of the principal surgeons of the French metropolis. It must, however, be said, that Dr. Markham has chiefly selected those cases in which the treatment pursued was least in accordance with English notions of surgery, which regard the safe and speedy cure of our patients as the first and principal object of the science. The latter part of the work affords a clear and succinct account of the opinions of M. Ricord, the chief surgeon to the Venereal Hospital of Paris, upon the nature and treatment of syphilitic complaints; an account which will be read with interest by a large body of the profession in this country. Upon the whole, we regard Dr. Markham's little work as one that will afford much amusement, blended with instruction, to all those whose curiosity to know the proceedings of our neighbours at the other side of the English Channel, may induce them to peruse it.

Practical Remarks on the Discrimination and Appearances of Surgical Disease; with an Appendix, containing the Descriptive Catalogue of the Author's Collection in Pathological Anatomy, and the Hunterian Lecture for 1833. By JOHN HOWSHIP, Surgeon to Charing-cross Hospital.

THIS work, which was published but a very short time before the death of its author, is intended to assist the diligent student in the difficult and anxious duty of discriminating disease, and in forming a correct judgment on the changes induced, or, in other words, the appearances of disease, by the attendant symptoms. It presents to the reader the details of nearly three hundred cases of disease, occurring in various parts of the body, which have been carefully selected from a very large number of observations, watched and noted by the author in the course of the last thirty years. The illustrations have been rendered as useful as possible, inasmuch as care has been taken to avoid placing them in subservience to any artificial, abstract, or intricate system of arrangement: the commentary simply commences with the head, taking up the external parts first, and passing thence to internal affections; it then proceeds downwards to the neck, chest, and abdomen. One great object of the author has been to advance nothing on doubtful authority, and to enable the reader in every instance to see on whose responsibility the statement rests. Also, whenever of two cases parallel in symptoms, the one has ended favourably, the other not, the latter has generally been taken in preference, such case having most fre-

quently afforded an opportunity for ascertaining the appearances after death. This work will be found to contain a great number of interesting and instructive cases, which will be perused by the student and practitioner both with interest and advantage, and must render it an useful addition to any medical or surgical library.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, March 9, 1841.

Dr. WILLIAMS, President.

Case of slow Pulse with Fainting Fits, which first came on Two Years after an Injury of the Neck from a Fall, and proved Fatal Five Years and Three Months after the Accident. By J. H. HOLBERTON, of Hampton, Surgeon Extraordinary to the Queen Dowager.

THE subject of this case was a gentleman, 64 years of age, who received an obscure injury to the neck from a fall from his horse in December, 1834: from this injury he slowly recovered, and at the end of a year complained only of some difficulty in moving his head. Nothing further was remarked respecting this gentleman until January, 1837, when he had a fainting fit; and Mr. Jackson, of Stamford, then observed, for the first time, that his pulse beat only twenty in a minute. From this time he had similar attacks at irregular intervals, and from various causes; one in the spring of the same year, from excitement at a horse-race and long fasting; and another in the following June, from a somewhat similar cause; in the latter instance his pulse was twenty-five in a minute. When the author first saw him in March, 1837, his ordinary pulse was thirty-three, but it was easily altered. Mental excitement usually increased it; and in general this was followed by a corresponding slowness of the pulse, and often by a fainting fit. The general characters of the pulse, when the patient felt well, were firmness, fulness, and freedom; generally it was regular, but sometimes intermittent. An overloaded state of the stomach was an occasional cause of these attacks; and in June, 1838, when the patient suffered from "a severe and alarming succession of fits," the pulse fell to twelve, ten, nine, eight, and, at three or four different times, as low as seven and a half in a minute. One of the attacks ended in the death of the patient in April, 1840. The examination of the body was made by Mr. Liston, from whose report the following is extracted:—"The medulla oblongata was small in size, and extremely firm in consistence; the foramen magnum was altered in shape, the antero-posterior diameter being much diminished; the superior part of the odontoid process of the axis appeared to have been pushed back, and somewhat raised above its usual position. The antero-posterior diameter was so much narrowed, that it would not admit of the little finger; the dura mater and ligament covering the posterior part of the body of the axis were much thickened; the atlas was in its usual situation, but the articular cavities were firmly ossified to the condyles of the occipital bone, and permitted no motion whatever between the atlas and skull." The patient never had paralysis, no alkalescent urine; neither did he suffer from pain in the neck after the first few weeks from the accident.

The PRESIDENT inquired if Mr. Holberton had any knowledge of the previous history of the patient, and of the state of the pulse prior to the receipt of the injury.

Mr. HOLBERTON had understood that the pulse of the patient, previous to the injury, was about sixty, and that his general health was good.

Mr. CESAR HAWKINS believed that this case exhibited an instance of the slowest pulse ever recorded. He considered that this state of the pulse was not attributable to the accident which had befallen the patient; for had this been the case, he conceived there would have been some signs of injury to the medulla oblongata present. What was the number of the respirations during the time the pulse was so slow?

Mr. HOLBERTON had not counted the respirations during the time the pulse was so slow. During the entire illness, however, the respiration was natural, and unattended by any cough.

Dr. ADDISON had, within the last fourteen days, seen a case, with Dr. Hull of Peckham, very much resembling the one detailed in Mr. Holberton's paper. In this case the patient was a gentleman, 60 years of age, in easy circumstances, and had always something remarkable in the condition of his pulse; he had been subject to a kind of epileptic fits, during which he lost his recollection, and his pulse beat only twenty-three or twenty-four in a minute; it gradually acquired number, until it reached to sixty or seventy; it would then become perfectly still, and in a very short time the convulsive fit came on, when the heart began again to beat, the pulse was found to be at twenty-three; it would then gradually increase in number, until it reached the standard of health, when it would again stop, the fit again occur, and the same series of phenomena would again go on. During the time the pulse was at twenty-three, a double beat might occasionally be detected: during this time, also, there was a loud thumping and throbbing of the heart, attended with a distinct bruit or grating; but whether this was

situated at the aortic or mitral valves, could not be determined: as soon as the heart beat with greater freedom, the bruit could not be heard. This patient had suffered from no accident to the head, neither had he evidenced any symptoms of head affection; his general health was not bad. He had only seen the case once, but he had heard from Dr. Hull two days before, and he had informed him that the patient remained in the same condition; the pulse having on one occasion been as low as seventeen in the minute; the respirations were precisely the same in number, and simultaneous with the pulsations. There might be a source of fallacy in these cases from the supposition that the heart did not beat at all, except at the time of its throbbing; in many instances, however, as also in this one, there might be beats of the heart audible when the ear was applied to it, but not sufficiently powerful to impart a perceptible impulse to the artery at the wrist.

Mr. PERRY inquired if, in Mr. Holberton's case, this source of fallacy might not be present: there might be sufficient power in the heart to carry on circulation adequate to life, but not for the pulsations to be felt at the wrist.

Mr. HOLBERTON had not examined the heart by the ear; but during the time the pulse was slow, it was, nevertheless, perfectly regular.

Dr. C. J. WILLIAMS remarked, that there were two kinds of cases in which the pulse was very slow: in one of them, as in Dr. Addison's case, the pulse at the wrist did not correspond with the pulsations of the heart; in the other case, of which Mr. Holberton's was an instance, the pulse at the wrist was very slow, and corresponded in number with the pulse at the heart. He knew a member of the profession whose pulse, for a considerable period, had varied from sixteen to thirty, the pulsations of the heart being always similar. There was a marked difference in these two classes of cases: in the latter, the slowness of the pulse was compensated for by a long and loud pulsation of the heart, strength and energy making up for want of frequency. Respiration, in these cases, did not bear relation to the pulse, they being twenty in a minute, or natural, when the pulse was twenty-four. In intermittent pulsation, the heart's impulse was not transmitted to the wrist, for want of power in the muscular structure of the heart.

Mr. SMITH inquired, what was the condition of the vertebral arteries in Mr. Holberton's case. He thought that, if these were pressed upon, the circulation through the brain would be disturbed, and the phenomena exhibited in the case explained.

Mr. HOLBERTON replied, that the vertebral arteries were not examined.

Mr. B. COOPER thought the case related by the author of the paper, and that detailed by Dr. Addison, bore no kind of analogy; in one, the cause of the phenomena was traceable to the injury; in the other, the symptoms regarding the circulation appeared to have an idiopathic origin. It would have been interesting, in Mr. Holberton's case, to have ascertained the state of the vertebral arteries, and also of the pneumo-gastric nerves; the latter of which were probably implicated, from the sympathy evinced between the state of the stomach and the occurrence of the fits.

Mr. CÆSAR HAWKINS did not think it had been shown that the state of the circulation was dependent on the accident. The fall was attended by no paralysis, or other symptom of pressure. If this state of circulation had been found in a person who had not met with an accident, the thickening of the dura mater, or narrowing of the spinal canal, would not have been noticed in relation to the state of the pulse and heart.

Dr. BURNE inquired if the condition of the arteries generally had been examined into; and, on being answered in the negative, remarked, that he was quite convinced that an irregular action of the heart and pulse was frequently dependent upon a diseased state of the arteries. Many symptoms which were presented to us, and supposed to be consequent upon other diseases, had their real origin in arterial affection. This disease of the arteries often gave rise to an irregular state of the pulse, and was unaccompanied by any disease of the heart, that organ being only hypertrophied or dilated.

Dr. JOHNSON, in the whole course of his practice, had never seen the heart's action disordered from disease of the arteries alone. Twenty years since, he had seen a patient whose pulse was only twenty-four in a minute; but on examining the heart, it was found to beat distinctly forty-eight times in the same period. He had seen many cases, of a similar kind, since. He believed, generally, that when the pulse at the wrist was so slow as in the case he had mentioned, that the heart's action was double. With reference to the evidence of the cause of disease, as shown by dissection, he believed that, on this point, we should not always be satisfied. A young woman had lately died in St. George's Hospital with paraplegia, double vision, and other symptoms of pressure, yet the spinal marrow and the brain, after a most careful examination, showed no sign of disease.

Dr. C. J. WILLIAMS had never found irregular action of the heart, as the result merely of disease in the arteries. When irregular action of the heart did exist, it was usually referrible to disease of the valves of the auricular openings, rather than of the arteries. One diagnostic mark between disease of the aortic valves and disease of the auricular valves was, the presence of irregular

action of the heart in the latter disease; when the aortic valves were diseased, it was also more common to find the arteries diseased; and, on the contrary, when the auricular valves were affected, the arteries were healthy. In Mr. Holberton's case, he believed the slow state of the pulse was dependent upon a deficient circulation of blood in the brain. The same symptom was observed in fainting and apoplexy, in which states the circulation through the brain was interfered with. He thought, in the case in question, it was probable the circulation through the brain had been interfered with in consequence of compression of the vertebral arteries. The case was curious, from the early history of it presenting so few symptoms of injury to the spinal marrow. It was quite certain, however, that the spinal canal had become narrowed, by the occurrence of exostosis in a particular part, and that the spinal cord had become gradually atrophied. Cases, in which a slowly-increasing osseous tumour had pressed upon the cord, were on record, in which no paralysis had been present.

Dr. Burne was quite aware that the opinion he had expressed, with reference to the connection between irregular action of the heart and disease of the arteries, might be considered incorrect. He knew that it was founded on fact, however, although it had been generally overlooked. If the gentlemen who had spoken against his opinion would take the trouble to examine sufficiently minutely, they would discover the connection in question. Dr. Burne then related a case in which there was irregular action of the heart, without any disease in it, "it being merely excessively hypertrophied," which was dependent upon a diseased state of the arteries. In answer to a question, Dr. Burne further stated, that he did not consider hypertrophy of the heart to be disease, any more than the full developed muscle in the arm of a smith was disease.

Mr. Arnott thought, in Mr. Holberton's case, it had not been at all proved that the state of circulation was in any way connected with the accident received so long before. His own impression was, that the accident had nothing whatever to do with the state of the circulation, and that the condition of the spinal cord and the slow pulse were merely coincidental.

WESTMINSTER MEDICAL SOCIETY.

Saturday, March 13, 1841.

Mr. Gregory Smith, President.

Mr. Snow read a paper on a

PECULIAR SPECIES OF DEFORMITY OF THE CHEST AND SPINE IN CHILDREN.

He proceeded to say, that the deformity in question was a consequence of enlargement of the abdomen, a cause of deformity which had not been hitherto recognised by authors. He related a case, in illustration of the deformity, which was of the following nature: The abdomen was very large; the chest was broad behind, very narrow in front, and flattened at the sides; the sternum projected very much, especially at the lower end. The cartilages of the ribs, instead of passing outwards from the sternum on each side, left that bone at an angle, by no means very obtuse, and passed backwards to meet the osseous part of the ribs at another angle; and the cartilages of the false ribs projected laterally from the bony portion, so that the lower part of the chest was much expanded where it united with the enlarged abdomen. There was projection backwards of the last dorsal and first lumbar vertebræ; the breathing was quick, the inspiration being easy, but the expiration difficult, and attended with an effort approaching to a cough; the upper part of the air-passages being closed after each inspiration, and then the air escaping with a slight sound, similar to that which takes place after the breath has been held for the performance of any muscular exertion. In order to show satisfactorily that this deformity of the chest was caused by the enlargement of the abdomen, he said he must prove that the space within the thorax was increased by any great distention of the abdomen, and not diminished, as was generally supposed. As the belly increased in size, the false ribs, with their cartilages, were pressed upwards, and approaching to a right angle with the spine, the circumference of the chest was thus increased; and the abdominal muscles, which, by drawing down the ribs, were the chief agents of expiration, could but ill perform their duty, since they were kept on the stretch by the bulging out of the abdomen. Moreover, the diaphragm, being attached to the base of the chest all round, had its borders drawn further apart by the increased circumference of the thorax; and thus its natural arched form was altered, and approaching to a plane partition, the chest, so far from being encroached upon by the abdominal cavity in this direction, had its perpendicular length increased. He had always observed that the difficulty of breathing arising from enlarged abdomen, consisted in obstructed expiration. The bellies of children, he said, were subject to very much greater proportional enlargement than ever obtained in the adult; and the cartilages and ligaments of the ribs being more flexible and distensible, the expansion of the base of the chest became very great; and as the lungs were compelled, by the atmospheric pressure, to occupy every part of the chest, they must either be preternaturally distended, or the chest must be depressed in some other direction. Now, the ribs and their cartilages being slender in children,

the latter took place, the chest became depressed latterly, the sternum projected forwards, and a channel was left down each side of the thorax, where the cartilages united to the osseous portion of the ribs. The action of the diaphragm, which pressed down the abdomen, and, at the same time, drew up the cartilages of the lower ribs during each inspiration, made room for more air than the lungs were inclined to receive, and the sides of the chest were pressed further in during each inspiration, and returned again during expiration, thus the motion of the ribs became the reverse of the natural one. He did not conceive this arose from the mechanical resistance of the lungs, but from the sudden stoppage at the throat to the further access of air; a symptom which he had observed to be never absent during this deformity of inverted motion of the ribs. It was made evident by the slight explosive sound, when the passage was again opened at each expiration, this check to the further ingress of air was, no doubt, a voluntary or instinctive effort to avoid the uneasy sensation which arose from too great distension of the lungs. He did not think it consisted in a closure of the glottis, but in the approximation of the posterior palatine arches, and the pressure of the root of the tongue, at the same time, against the palate of the mouth, the method of voluntarily holding the breath, discovered by Dzondi. It was the office of the serratus magnus and the pectoral muscles to expand the sides of the chest during inspiration; but the diaphragm enlarging the chest more powerfully in another direction, these muscles yielded to the atmospheric pressure, and eventually became paralysed. He had never seen enlargement of the abdomen to any extent in a child under three years of age, that was not accompanied with this deformity of the chest. The degree of the deformity was always in proportion to the enlargement; and in observing any individual case, the deformity was found to increase with the increasing size of the abdomen: even where the enlargement of the belly was not great, there was a tendency to the deformity observable in the slight lateral projection of the cartilages of the false ribs. After the age of three or four years, he had not observed this deformity to commence, probably because the ribs became of a strength which prevented it, besides, that the abdomen was not so liable to become tumid. The other deformity, that of the spine, seemed to be only an occasional and not a constant attendant upon enlarged abdomen; he thought it was in the worst cases that it prevailed. It consisted in a projection, frequently an angular one, of the last dorsal or first lumbar vertebra, or both. In the case he had detailed, it was accompanied by a secondary projection of the sacrum; and in another case it was attended with a slight lateral deviation. This projection of the spine was probably caused by the stretched abdominal muscles and integuments, drawing by means of the pelvis and chest on the opposite ends of the spinal column, whilst the increased contents of the abdomen made a resistance in the centre: that this angular projection of the spine depended on disease of the bodies of the vertebræ, in the first instance, we were forbid to suppose, by the fact that the projection subsided as the abdomen diminished: in one child, an angular projection, for which the formation of issues had been previously recommended, perfectly disappeared as the child resumed its health. It most likely depended on partial absorption of the intervertebral substance, or bending of the bodies of the vertebræ at the affected part; and if continued, might, no doubt, lead to permanent disease. He had only in one case of this deformity seen the enlargement of the heads of the bones peculiar to rickets; and considered that if that disease existed, it might aggravate the deformity, but could not of itself cause it. A scrofulous diathesis, by predisposing to mesenteric disease, might be favourable to the development of this deformity; but in the cases he had seen there were no enlarged glands or other decided marks of struma; and in the only two cases in which he had the opportunity of an examination after death, there was no disease of the mesenteric glands, and the enlargement depended chiefly on elongation and distension of the colon. The lungs were healthy in all the cases except one, in which there was hooping cough. He had generally been able to trace the increased size of the belly to improper food, and had met with it mostly amongst those infants who, from the poverty or intemperance of their parents, were, after weaning, fed almost altogether on potatoes. He considered the best treatment to consist in alterative and tonic medicines, with occasional purges, and the careful avoidance of crude and indigestible food; at the same time the abdomen should be firmly bandaged: which measure, whilst it assisted to reduce the belly to its natural size, would relieve the breathing by aiding the efforts of expiration, and by pressing the diaphragm upwards, would reduce the capacity of the base of the chest, and thus lessen the cause of the contraction higher up. He said, if this deformity were left unassisted, and should not prove fatal, it might continue after the cause which gave rise to it—the enlarged abdomen—had subsided, and become permanent.

Dr. Verrall had seen cases similar to those described by Mr. Snow. He agreed in the main with him in his explanation of the causes of the deformity, but thought that in general there was a predisposing cause in the system preceding the enlargement of the abdomen. The treatment he had found

successful was the use of alterative medicines, and occasionally the employment of preparations of iron, with the application of a bandage, which should be placed sufficiently high and low, as to make it necessary for the patient to expand the chest in breathing.

Dr. BIRD had frequently found these deformities give way to the use of proper alterative medicines, as the mixture of a few grains of rhubarb powder with sulphate of potash every morning. A small dose of mercury with chalk might be given occasionally, if the state of the secretions indicated the necessity for mercurials. He had generally found in these cases of deformity that the lungs were more or less affected.

Mr. WADE had been very familiar with the class of cases under consideration, more particularly when he was connected with the Infirmary for Children. He had found it to exist usually in children who had been ill-fed, and had lived in impure air; it was sometimes, but not always, connected with lung disease. He had found the application of a bandage to the abdomen, with the use of stimulating liniments, such as iodine, and the administration of alteratives, and occasionally preparations of steel, the most effective mode of treatment.

Dr. CHOWNE thought that these cases of deformity of the chest were generally dependent upon some general condition of the osseous system, such as scrofula acting locally.

Mr. CHANCE believed that the deformity of the chest was a local scrofulous disease, and that the state of the abdomen was consequent upon the chest affection, and not, *vice versâ*, as had been supposed. He believed, also, that in the children subject to this deformity the chest was always small, in proportion to the size of the body. He had found the deformity to exist in the children of the affluent as well as of the poor; the tumid belly was so frequently present without deformity of the chest, that he thought we were bound to consider that the original cause of the chest affection was not in the abdomen. The application of slight pressure by means of a bandage, rubbing the chest night and morning, and the employment of alterative medicines, were usually attended with good results.

At the next evening meeting the subject of stammering, with new modes of treatment by operation, will be brought forward.

MEDICAL SOCIETY OF LONDON.

Monday, March 15, 1841.

Dr. CLUTTERBUCK, President.

MAMMARY ABSCESS—THE PRESENT EPIDEMIC.

Mr. KINGDON drew the attention of the society to a case of abscess, situated in the tissues beneath the mammary gland; it had been treated as a common milk abscess; and when the matter had pointed in one place, and an incision was made into the breast, it subsequently formed in various parts of the gland; and although every thing that medical aid could do was done, the patient sunk. After death, an extensive abscess was found situated behind the gland, through which the matter had burrowed in various directions; the gland itself was otherwise healthy. In another case in which he had lately been consulted, a hard, painful tumour was situated behind, and totally unconnected with the mammary gland. Under proper remedies the pain was much relieved, but subsequently returned; and although there was no symptom of scirrhus present, he had given his consent to the removal of the breast, recollecting, as he did, the fearful consequences following the former case, and that the operation would not be likely to be a serious one.

Mr. BISHOP thought that when a tumour was situated beneath, and was quite distinct from the gland, it was not necessary to remove the gland itself, but simply to make an incision into it, for the removal of the tumour. He thought it advisable, when a tumour so situated was increasing in bulk and weight, to take it away by the knife, as a very intractable disease might thus be stopped at its commencement. In a case of this kind, Mr. Liston had lately removed a tumour in the manner he had mentioned, with the best effect.

THE INFLUENZA.

The PRESIDENT brought before the society the subject of the present epidemic, and read the following description of a similar visitation, which had been prevalent in London in 1813, and of which he kept notes at the time:—"An epidemic disorder has been prevailing for two or three weeks past, especially among women and children, though by no means confined to them. It began with considerable symptoms of fever, and much headach, great prostration of strength, hot skin, and extremely quick and frequent pulse; the tongue is thickly covered with a yellowish-white and moist crust; great restlessness, in a few cases slight delirium. These symptoms have been commonly ushered in by severe rigors, or a cold fit; in most cases catarrhal or pulmonic inflammation, or both, have been conjoined; in a word, all the symptoms of the epidemic catarrh, or influenza of former periods. In some instances, instead of catarrh there has been angina; in one case which I witnessed, the fever was combined with erysipelas of the face, in another with peritonitis. I consider them all, however, as essentially the same disease, as they occurred in similar situations and circumstances, and with the same general train of febrile symp-

toms. This affection agrees closely with the 'tussis epidemica' of Sydenham, as prevailing in 1675. It has, in the present case, been very severe in general, though rarely, I believe, fatal; the case mentioned as accompanied by peritonitis proved so. With respect to the treatment, the pain in the chest and the dyspnœa have, at times, been so considerable, as to demand venesection and blistering; but, in general, a mild antiphlogistic treatment seems to have been all that was required for its relief. On the second or third day profuse perspiration has generally come on, and then the disease quickly subsided; it seldom continued more than five or six days altogether. Nov. 20, 1813." The same kind of affection had prevailed in 1831, 33, and 36, in June, April, and May, respectively; in these and the present epidemic the symptoms corresponded, as did also the treatment. We were ignorant of the origin of the affection, but it was clearly a specific one, and remedies would not cure it. The duty of the practitioner consisted in a careful watching of the progress of the complaint, and the alteration of any urgent symptoms that might arise; usually the disease was so mild as to require little interference; but when the head was much affected, or the chest inflamed, blood-letting, to the extent of six or eight ounces, once or twice repeated, he had often found necessary, and of most service. He thought too much attention had been paid to the debility which accompanied the disease, in reference to depletion, for he had not found careful venesection retard convalescence. Another reason for moderate depletion was the prevention of future mischief, as it was well known that previous visitations of influenza had been followed by consumption, consequent upon the inflammatory affection of the chest.

Mr. Proctor thought this epidemic differed from the last one, in the chest affection being much less severe, and in the greater tendency in the present to neuralgic disease. So much had this prevailed, that he had been frequently obliged to give quinine; and this mode of treatment had been attended with the best results. In one or two cases he had found a great deal of oppression about the chest, but this was not inflammation; he had, in one of these cases, applied leeches and counter-irritants with good effects, but he had never found it necessary to bleed generally. In some cases, where there was much restlessness, Dover's powder had been beneficial in procuring sleep, and relieving irritation.

Mr. Linnecar remarked, that the term influenza was too vaguely applied, to enable us to decide the plan of treatment to be pursued generally in the disease, merely from its designation. The treatment must altogether depend on the constitution of the individual attacked, and on the symptoms presented. He had seen cases of neuralgia, like those mentioned by Mr. Proctor; but he had also seen cases of a mixed kind, in which he had found it necessary to abstract blood, locally, before giving quinine for the relief of the neuralgic pains. In other cases, weakness of the pulse had been so marked a symptom, particularly in old people, that he dared not deplete.

Dr. T. Thomson had found the present epidemic differ in many particulars from those of former years. Here and there cases of pectoral affection presented themselves, but the symptom most generally prominent was a disturbance of the digestive organs, with much liability to bilious vomiting. This state of the digestive functions was also attended by a peculiar spasmodic kind of cough, which appeared to be dependent upon abdominal congestion, and was best relieved by one or two doses of calomel. He had not noticed so much profuse perspiration in this as in former epidemics. In regard to the proper mode of treatment, he had already said that much good had resulted from one or two doses of calomel; this and the employment of ipecacuanha as an emetic he had found attended with much benefit. In several neuralgic cases he had used quinine early, with a good result.

Dr. Bennett considered the present different from former epidemics. In addition to the difference in the catarrhal symptoms, suffusion of the eyes was much more common in this visitation than in former ones. The fever in the present affection was mild; there was much lassitude, and a disordered condition of the stomach and bowels, but the patient rapidly recovered. In the last epidemic, on the contrary, the convalescence was tedious; the frontal headach was also less severe in the present affection. He had not found blood-letting necessary for its relief in any case, and the use of leeches did not seem of benefit. He had, however, seen some severe cases of pulmonic inflammation demanding the employment of venesection and antimonials. With regard to the diarrhœa, which was so frequent in the present affection, it was often best treated by small doses of Dover's powder and calomel.

Mr. Kingdon had found the disease to be different in intensity in different localities. The neuralgic affection and the painful state of the limbs, with a tickling cough, apparently the result of gastric irritation, were the more usually prominent symptoms.

Dr. Chowne considered the disease milder in the present visitation than in former ones; it was usually necessary to do but little. Watching the progress of the case, and combating symptoms as they arose, rather than any attempt to arrest the course of the disease, seemed the best general mode of treatment. He had not seen any cases requiring venesection.

SUGGESTIONS FOR A

FACULTY OF SURGEON-DENTISTS.

To the Editor of THE LANCET.

SIR:—A very talented surgeon of this town, who had heard my recently-delivered lecture "on Medical and Dental Quackery," suggested what I think an excellent plan. He said, it would be well for the respectable members of the dental profession to form themselves into "a faculty of surgeon-dentists;" that they should frame a code of laws, and institute a certain examination in general and special anatomy, physiology, and pathology; and having by such means ascertained the mental qualifications of candidates for membership, those who were deemed qualified to practice should have a diploma granted them. They would, by such a testimonial of professional knowledge, be distinguished from the herd of boasting and ignorant empirics, who now render the profession of surgeon-dentist disreputable and odious by their trickery and extortion. There is a precedent for the formation of such a faculty as the one now recommended, the College of Surgeons having been instituted in a similar manner. We should have sufficient guarantee for the respectability and talent of such a faculty, if such gentlemen as Mr. Thomas Bell, Mr. Nasmyth, Mr. Rogers, &c. &c., were chosen as an examining council. Very shortly something will be necessary to give the public confidence in dental practitioners, as the "doings" of itinerant surgeon-dentists are deserving notice in the pages of your excellent Journal. They have lately increased to such a degree, that it may be said of them, what George Colman said of authors,—

"They wriggle along in shoals."

It is very curious, that people who live under what are called despotic governments, have better care taken of their health and morals than under our free institutions. It is well known that men may turn doctors or educators when all other things fail; and it matters not how ignorant or unqualified they are so that they can make a dash, dress smart, and use the personal pronoun I, and make great promises, without the least desire or intention of realising them. Now, on the continent, if any one desires to practise in medicine, &c., he must undergo an examination as to his intellectual qualifications and moral character; and, if deemed eligible, he has a licence to practise physic or teach: and so it should be in this country; and quacks should not be allowed to jeopardise either the health of the body or of the mind. I am, Sir, yours, very respectfully, J. L. LEVISON.

25, Upper Temple-street, Birmingham,
March 2, 1841.

*** We concur most cordially with our correspondent in his suggestion. The advantages resulting from such an association as that proposed would extend both to the public and to the profession of dentistry; and while it offered an assurance to the former that, in submitting to the treatment of a dentist, they were not yielding the care of important organs to the hands of ignorant quackery, it would be bestowing a respectability upon the art, which, we regret to say, is, at the present, far from being universally admitted.

THE MEDICAL-PROFESSION BILL.

To Benjamin Hawes, Esq., M.P.

SIR:—The mighty conference, then, has taken place; and the only two men who have had any opportunity of gathering, practically, nay, personally, the opinions and feelings of the profession, have been snubbed by two enlightened members under their own honourable roof.

We had not doubted that you had maturely reflected on the grand principles of medical reform ere you framed your elaborate clauses, yet, were it not for your own declaration that a new light has since broken in upon you, we might well have supposed that the great change that has come over your mind had been affected by some glamourie or animal magnetism of Mr. Warburton.

It is clear, at least, that a great chemical re-agency has been worked by the once dissonant senatorial election from Bridport and Lambeth. Which is the acid and which the alkali, I will not presume to determine; it is enough for us to know, that after some slight effervescence, the two mixtures have at length subsided into a neutral compound.

A sort of unjustifiable infanticide has been committed; the legislative Saturn has eaten two limbs of his own child.

The mighty Bill has been shorn of its fair proportions. As the Whig attorney-general possesses, on criminal matters, a happy knack of proving his own oversight or ignorance, so you, Sir, found out your flaw only when you had come into court, and had gone some way in opening your pleadings.

The only clauses which promised to reconcile the profession, and to work an *immediate* and honourable change, have been withdrawn—withered by the frowns of a faction! The play of Hamlet has been enacted; the part of Hamlet, as it is said to have been at Dunstable, omitted by particular desire of several persons of distinction. The practising druggist may still dispense

his own prescriptions; the empiric dispense his poison potions; and the shrivelled Bill resolves itself into a grand scheme of superfluous registration (by which the profession is to pay a tax for the privilege and pleasure of affixing its own signature at a register-office), and the bugbear of universal suffrage. Were this the cause of any other than Mr. Hawes, I should fancy I saw a cloven foot peep out, and might think that the withdrawn clauses had been inserted merely as decoy ducks merely to cry out "quack," that they might lure other web-footed birds into the toil, to swell the cackle for reform. And what will universal suffrage effect towards the purification of our profession? Is it likely that the representative of the great mass of the profession, who are themselves identified with the chemist, and blazon his very name in golden letters on their doors and windows, is it likely that *they* will be more influential with the Legislature in redressing *real* grievances than the present corporations?

There is no hope, it is clear, of conciliating Mr. Warburton; his erroneous notions regarding the liberty of the subject are one cause why he sets his face against coercive measures: his difficulty in *defining* medical practice is another; seeing that he confesses himself unable to draw any line of distinction between ordering water-gruel for supper, and deciding on the treatment of acute enteritis.

You, Sir, are fresh in the field of medical policy—you have undertaken a bold work—to carry it through, you should listen to no whisperings or *ear-wiggings* of a faction, but to the voice of the profession, your motto being "fiat justitia." I am, Sir, your obedient servant,

Δ.

March 15, 1841.

STAMMERING *versus* SQUINTING.

(*From a Correspondent.*)

A RECENT communication to the Academy of Medicine, by M. Amussat, on the curability of stammering, by the operation first proposed by Dieffenbach, appears to have excited, in the bosom of that assembly, an *emeute* of the most disgraceful nature.

Certain young men, whose judgment seems not to be in proportion to their zeal, submitted to the academy a hurried report of two cases of stammering, which, according to that document, were perfectly cured by dividing the genio-hyoglossi muscles and the frænum of the tongue. Some of the members, who, during the late strabismus discussions, took an active part against the advocates of universal squint-cutting, now made a fierce opposition against the intrusion of this new specimen of charlatanism into their august presence. It is to be regretted, for the sake of science, that that opposition was not conducted in a more dignified tone and manner; then it might have given a death-blow to the shallow philosophy of those crude theorists and hasty generalisers, which never fails, ultimately, to bring disgrace upon the profession; but as it is, unfortunately, the debate in the academy cannot but excite, in the mind of every well-wisher of true surgery, the most supreme contempt and ridicule. Indeed, the rabid ravings, menacing aspect, and furious gesticulations of M. Gerdy against one of the *tongue-slitters*, indicated that that gentleman was more fitted to figure in an arena of wrestlers or of gladiators, than in the cool and tranquil discussions proper to the halls of the Academia. He has, however, received a just and merited castigation from the pen of the talented editor of the "Gazette Médicale" for the 27th ult.; and we earnestly hope that the biting sarcasm directed at him from that quarter, will have a salutary effect in preventing a repetition of such riotous and degrading conduct.

The cure of stammering by operation has been already commenced in London, by several individuals; and, no doubt, it will be as industriously obtruded before the public, and obtain the same ignoble notoriety as its immediate predecessor. It is absurd—it is the very essence of empiricism for men to say, that stammering can be cured by dividing the muscles of the tongue. In cases where the tongue is tied (as it is popularly termed), it is sufficiently evident that the division of the frænum, by freeing that organ, will enable the individual to enunciate more distinctly than before the different labial and palatine words: these are *mechanical defects*, and can, undoubtedly, be relieved by the knife. But, in the great majority of instances, what is the cause of stammering? Is it owing to a similar defect, or *is it not the result of innervation?* We certainly incline to the latter opinion, and, consequently, under such circumstances, repudiate the idea of curing stammerers by any operation whatsoever.

With a total disregard to first principles, and evidently with profound ignorance of the mechanism of voice, as well as of the proper functions of the tongue, some individuals in this town eagerly seized at the bait held out by the continental surgeons, and, now that squint-cutting is at a discount, have vigorously commenced operations on the tongues of the most gullible of her majesty's liege subjects. It is perfectly amusing to observe the self-complacency with which one of the persons above alluded to asserts, that an elongated uvula and a pair of clumsy tonsils are the parts at fault in the majority of stammerers. This gentle-

man, it is clear, must have been instructed in physiology by the "Society for the Confusion of Useful Knowledge." What, in the name of Heaven, have the uvula and tonsils to do with the articulation of words! But, we beg pardon, perhaps they have some material functions to perform in the enunciation of the unknown tongues, which, no doubt, the writer in question meant, instead of the vulgar or mother tongue.

Others, again, allege that there is a corresponding obliquity in the position and movements of the tongue in stammerers, to that of the eyeball in cases of strabismus; *ergo*, they say we are justified in dividing the muscle in the former, on the exact same principle that directed us to do so in the latter instance. Now, admitting the obliquity to exist in both cases, we would beg to ask these operating theorists the cause of that obliquity. Does it arise from spasm or paralysis, or even from congenital deficiency of muscular fibre? Further, suppose, for instance, that convergent strabismus does actually depend on contraction of the inner rectus muscle, and that it is divided for the purpose of allowing the organ of vision to resume its proper axis; what *then* counteracts the antagonising power of the external rectus, which, in the course of time, may, as we know from experience, draw the eye in the opposite direction, and thus substitute one kind of squint for the other? We deny that any cellular adhesions or subconjunctival membranes can fulfil that end. These remarks apply equally to the division of any single muscle of the tongue.

But, on the other hand, if stammering *results*, as we verily believe it does, in the majority of cases, from innervation or paralysis of one or more of the lingual muscles, it is needless to add that an operation of any kind would be sheer quackery. We should like to ask these operators why do drunken people invariably stammer?

It must not be inferred, from the foregoing observations, that we wish to condemn all attempts at the improvement of surgery. On the contrary, when these inquiries are conducted in a legitimate manner, and in accordance with one of the first principles of inductive science,—namely, the discovering a cause before we look for the effect, and not the reverse, as seems to be the present fashion,—no one can advocate or desire such investigations more strongly than we do. We have now, unhappily, abundance of painful evidence of the inefficacy of the squinting illusion, in the shape of bulge or prominent eyes, impaired vision, &c. &c., resulting from the mercurial system of medical philosophy indicated above; it is therefore our earnest wish to warn those concerned from falling into similar errors with the present hobby, and from bringing disgrace upon their profession. Some people may be curious as to the nature of the next new surgical improvement that may be imported from Berlin; for our own parts, we should not be at all surprised if it were the operation of *hair-splitting* for the prevention, if not the cure, of *alopecia*!

CHEMISTS AND DRUGGISTS.

To the Editor of THE LANCET.

SIR:—I thank you for the respectful and handsome manner in which you have mentioned the chemists and druggists. You have not, as my knowledge of your public character convinced me you had not, any prejudice against them, or desire to deprive them of their just and reasonable privileges. The chemists and druggists have been kicked and buffeted on all sides, and have scarcely imitated the worm in turning. You are the first of the medical profession who have spoken civilly or kindly of them.

The chemists and druggists as a body do not, as you truly divine, demand an unrestricted right to prescribe, and to treat disease in all its varied changes; they are perfectly aware of their incompeteney so to do; they only ask that they should not be reduced to automata behind their counters. By the late clause in Mr. Hawes' (in my humble opinion) inefficient and inconsistent Bill, they would not have been permitted to recommend a piece of adhesive plaster for a cut finger, a dose of rhubarb for the stomachach, a black draught or a couple of pills for the headach. Are medical men to be applied to in these trivial cases, that a chemist and druggist would set right for sixpence or a shilling?

I assert that any clause to prevent a chemist from prescribing to this extent, would be so great an inconvenience to the public at large, more especially the poorer classes, that it would not be tenable a week, under whatever penalties may be affixed to it.

In order to set the chemists and druggists right with you and the medical profession in explaining what their views really are, I have taken the liberty of thus addressing you, and I shall feel obliged by the insertion of the same in your Journal, which reaches every corner of the United Kingdom. I remain, Sir, with unfeigned respect, your obedient servant,

A CHEMIST AND DRUGGIST.

London, March 3, 1841.

THE PRESCRIBING DRUGGISTS.

To the Editor of THE LANCET.

"If I don't prig fogles and tickers, somebody else will."—OLIVER TWIST.

THIS, Mr. Editor, you will doubtless recollect is the plausible argument of the Artful Dodger. "If I don't prescribe, some-

body else will," has always been the cool rejoinder whenever I have ventured to express a doubt to a druggist that he was legally qualified to "prescribe and dispense medicines;" nor did I, till the other day, believe that any one of that body would have had the effrontery to assume to himself that as a right, which is, in fact, a robbery of the members of Apothecaries' Hall. If such a right there be, permit me to ask, wherein consists the difference between a druggist and a L. A. C.? I have the honour to remain, Mr. Editor, your obedient servant,

J. R. W.

MEDICAL CO-OPERATION.

VACCINATION IN ST. MATTHEW, BETHNAL-GREEN.

To the Editor of THE LANCET.

SIR:—Since I had the honour of addressing you on the subject of the shilling vaccination in this parish, I am happy to say, the medical men have had a meeting, at which it was unanimously resolved, "that a memorial be presented to the board of guardians, respectfully informing them that the sum of two shillings was the lowest that could be accepted for the attention and skill required in a successful case." The resolution, I am proud to inform you, was signed by those gentlemen who had been canvassing for the shilling remuneration, and by all the other legally-qualified practitioners residing in the parish. But mark the sequel. The board of guardians, vexed that men of education and gentlemanly feeling should array themselves in opposition to their mandates, and solicitous (ye gods!) about the dignity of the board, with that petty malevolence, too general amongst this body throughout the country where medical interests are concerned, resolved to advertise for four medical men, with the avowed intention of swamping our practices, and bringing us to our senses, for daring to oppose their high-mightinesses. However, after repeated advertisements, one miserable being only could be found to accept the distinguished office of sole parochial vaccinator at a shilling per head; and if I am correctly informed, with a (*sub rosâ*) understanding that if the vaccination should not bring him private practice sufficient to continue, he shall be sole parish surgeon at the next election, to the prejudice of the present surgeons, against whom no charge of neglect or incompetence exists, but simply because they have signed a document distasteful to the board of guardians.

Now, Sir, is such a state of things to be tolerated, that, because men of professional talent, respectability, and long standing, solicit consideration on a subject of which they ought to be the best judges, a set of tradesmen, mechanics, and ignoramuses, are to ludicrously assert that it would be beneath their dignity (forsooth!) to listen, and discard professional men as they would menials. No, the time has come, that it will be more apparent that we are not to be trampled upon with impunity; for although our power has lain so long dormant, it is to be seen if, like a giant refreshed, it does not level those that trusted too much to our proverbial non-resistance to oppression. And as, Sir, we have you to lead the van in the glorious engagement against the corrupt and corrupting public institutions, surely we may show the world that insult and contumely is not to be our lot passively, but that resistance, however late, may be a virtue. Allow me to subscribe myself one of your early correspondents and obliged servants,

CHIRURGUS.

January 15, 1841.

THE FALLING DESPOTS.

To the Editor of THE LANCET.

SIR:—An old physician, who has read your valuable medical Periodical from its very commencement, begs to offer you his sincere thanks for the prospect of reformation about to be commenced in high quarters, at least so it appears by your last week's Publication. I confess that I have always feared that, in the searching out and detection of abuses, you might exceed the strictly-defined prudential course; but I am now quite satisfied that I had no ground for apprehension, and that you are the true conservative, after all. What, for instance, could be more impertinent or unjust, than for the College of Physicians, after a gentleman had studied always three, and sometimes four, years in Edinburgh; and it is well known how men must have studied during many years past, and been finally examined (on two different days) by (in all) nine or ten professors,—what, I say, could be more offensive, than for the college censors of London to say no! It is very true that you have done all this, but this we consider as nought. Although we got our practical knowledge in the Scottish capital, yet, though an Englishman, we, having the power, will not suffer you to be accounted a doctor, and come into our privileged circle, and bring your hardly-earned information to market, till we Oxford and Cambridge doctors have examined you (on three different days), and to increase your difficulty we will test (?) your qualification, by examining you in the Latin language; a custom long since abolished in the university to which you belong: this farce seems nearly over, and for this, Sir, accept the grateful thanks of your hearty well-wisher,

M. D.

ASSURANCE-OFFICES AND MEDICAL MEN.

To the Editor of THE LANCET.

SIR:—The following statement may probably be worthy of your notice:—

I made proposals lately to an office for the assurance of my life, and among other categories was required to refer to two parties who had known me some time to speak as to my health, habits, &c., one of which parties was to be my usual medical attendant. I readily found a private friend who had known me many years, and who sent in his answer to the board of directors; I also referred them to a medical man whom I had known some years. On presenting myself to go before the board, I was informed by a clerk that my medical referee had sent a note to the office demanding a fee for his certificate, and that the directors refused always to give a fee under such circumstances. Some conversation ensued between the clerk and myself on the matter, when I found that this *fee* had been a point under dispute, if I may use the term, between life-offices and medical men for some time past. The clerk, whom, I presume, I may consider at the time to have been speaking the sentiments of the directors, stated, that "they considered it absolutely necessary that all the 'onus,' as to the statement of health, &c., should rest on the party proposing to be insured; that, therefore, the directors could not fee any medical referee for his certificate, as he would thereby become the company's agent, and not be liable to them for any incorrect certificate he might give;" and, further, it was stated by the clerk, that "there might be found" (I am bound to suppose with great difficulty) "medical practitioners who, for a guinea, would sign anything:" under these circumstances the directors had hitherto resisted the demand of a fee. He, however, said, that he would write again to my referee; and I undertook to call on him, and endeavour to induce him to wave his demand. I went before the board, was asked a few questions, and told I might retire. In the evening, however, I received a letter declining the assurance. Now, Sir, my impression is, that the directors, sooner than have any trouble, or raise a discussion about a (to them) paltry assurance of £300, threw it up at once. My private friend's answer was unexceptionable; indeed, I may say that I am, and have been, in strong health, with one exception, in the year 1826, all my life. I am, Sir, you see, placed in this position; I am rejected by an office of respectability, simply, as I believe, on a point of etiquette between it and a medical referee. It is highly desirable that this point should, if possible, be settled, so that the public may not be exposed to the disappointment arising from the defeat of such an arrangement, which may, as in my case, be of some consequence. I am, Sir, yours, &c.

A SUFFERER.

*** This communication has been authenticated.

BRITISH PHYSICIANS IN NAPLES.

(From a Correspondent at Naples.)

THE British physicians practising at Naples, have received notice from the police that they cannot continue to exercise their profession there, unless they take out a diploma from their college. This has excited some apprehensions among the medical men, and a representation has been made to her Majesty's minister on the subject. It is hoped that it will terminate in the same way as similar interferences at Wiesbaden and at Boulogne. There are, however, few places on the Continent where the physicians are treated with so little attention and respect as at Naples; they are never admitted to parties at the embassy, nor, of course, therefore, into other society. At a public ball given by the English, last year, the physicians were neither invited nor permitted to subscribe. It is true that the education and acquirements of medical men generally, on the Continent, are very far below that of physicians of Great Britain, and they are, therefore, not received usually in society; but it is extraordinary that the rule of foreigners should be adopted by British ministers towards medical men, rather than that which obtains in their own country; and because a physician is not received at a foreign court, is no reason why he should be deprived of the usual courtesies of society, and reception at the embassy, although he be quite admissible at the court of his own sovereign. It is true, also, that this exclusion obtains at very few other courts on the Continent.

PHILOLOGICAL SOCIETY OF LONDON.

IT is proposed to form a society for the cultivation of the science of language and its antiquities, on the model of the Geological Society and other institutions for the promotion of scientific objects. This association will include, in the range of its subjects, many in which Englishmen individually have distinguished themselves, and it is hoped, by giving the means of communicating ideas, that similar progress may be made with regard to languages hitherto neglected. Those who consider the manner in which our countrymen have aided in the advancement of classical literature, Egyptian, Oriental, and Scandinavian antiquities, will regret

that there should be nothing done for the promotion of philology in general. To supply this want, therefore, the present plan is submitted for consideration.

The proposed society is for the advancement of the science of philology, and its particular branches. To show the extent of objects included, and the support which may be expected for such an institution, it may be sufficient to enumerate the following among other languages: the Celtic dialects of this island and the continent; Anglo-Saxon, Icelandic, and the Scandinavian and Teutonic languages; Greek and Latin; Hebrew, and the Semitic languages of Asia; the Armenian; the Persepolitan; the languages of the Indian Peninsula; the Chinese, Indo-Chinese, Japanese, &c.; the Javanese; the languages of Polynesia, and the Malayan Archipelago; the Egyptian; the Amharic; the languages of South and West Africa, Mexican, Peruvian, Chilian, and the others of the American continent, &c.

Among the active promoters of this society are G. Tradescant Lay, Esq., 34, Burton-street, Burton-crescent; and Hyde Clarke, Esq., F.L.S., 10, Great Ormond-street, Queen-square.

THE MEDICAL-PROFESSION BILL, "THE HOUSE COUNTED OUT."

The first fruit arising from proceeding with a Bill which had not obtained the approval of the great majority of the Profession, was exhibited in the House of Commons on Wednesday evening last. "The House" was "counted out." It is melancholy to relate, but such is the fact, that when the Speaker rose from his chair to ascertain the numbers, there were *only thirty three members present* although the principle, the great and noble principle, which invigorates and enlivens the cause of Medical Reform, was under discussion, and for the first time, too, in the English House of Commons.

Another fact must be stated. There was not a single Minister of the Crown in the House.

The truth may as well out at once. Since Mr. Hawes declared that it was not his intention to interfere with unqualified practitioners,—with pretenders to medical skill,—in other words, since he declared, in effect, that it was not his intention to give protection to upwards of twenty thousand medical practitioners, who are now exercising their professional abilities in England, Ireland, and Scotland, those practitioners have felt the utmost indifference with respect to the fate of his Bill, save and excepting it be as regards the principle of representation which it embodies. Mr. Hawes has been again and again assured, by persons who are fully competent to form an opinion on this great question, that there is *no chance* of getting a good Medical Bill enacted, unless it be cordially, vigorously, and fervently supported by an immense majority of the medical practitioners of this empire. They do not want *another bad medical law*. There are enough and to spare of laws of that description already. It is really deplorable to observe that the success of a great and noble cause,—one which embraces the highest objects of science, and the most generous dictates of humanity,—should be perilled by precipitancy in its advocacy, and by the entreaties and projects of *designing speculators for office*. We believe that Mr. Hawes has been actuated by kind motives towards the Profession, but we must frankly tell him that we doubt the honesty of his advisers.

The state of the House, on Wednesday night, may yet prove a most useful and valuable lesson, with regard to the future conduct of the question of Medical Reform.

SUBSCRIPTION
FOR THE
WIDOW AND CHILDREN
OF
THE LATE DR. RYAN.

Amount of subscriptions already published:—	£137	16	0
Sir J. Clarke	2	2	0
Mr. Copeland	1	1	0
Dr. Crucifix	1	1	0
Plymouth Medical Society	5	5	0
Dr. Ramsbotham	1	1	0
Mr. Churchill	2	2	0
Total amount received..	£150	8	0

Klein Grant, M.D., Treasurer.

18, Charlotte-street, Bloomsbury,
March 10, 1841.

NEGLECT IN ST. BARTHOLOMEW'S.

A CORRESPONDENT, signing himself a "Student of Bartholomew's," states that irregularity, in the delivery of the lectures on medicine, is very great; that on the day on which he writes the lecture on surgery is postponed, and he has already waited half an hour for the lecturer on medicine, who has not yet appeared. He intimates, also, that such derelictions are not infrequent.

BOOKS RECEIVED.

The Chinese as they are: their Moral, Social, and Literary Character; a New Analysis of the Language, with succinct Views of their principal Arts and Sciences. By G. Tradescant Lay, Esq., Naturalist in Beechey's Expedition, late resident at Canton, &c. London: Ball and Co. 1841. 8vo. pp. 342.

A Practical Treatise on the Venereal Disease, with Plates. By F. C. Skey, F.R.S., Lecturer on Surgery, &c. London: Churchill. 1840. 12mo. pp. 195.

TO CORRESPONDENTS.

Tyro should apply to Mr. Balfour for a solution to his questions; he should endeavour to accord as closely as he can with the regulations of an institution of which he seeks to become a member.

Dr. Hocken's papers on amaurosis have been reserved for our second volume; the first shall be published next week.

We have received two letters from *Students of St. George's*, which shall be attended to next week.

Communications have been received from *An Old Physician*; *Mr. Horne*; *Dr. Barham Harris*; *Obstetriculus*; *Mr. Smith*; *A Voter*; *Mr. Hall*; *Veritas*; *Indicator*.

We are unable to find room this week for several correspondents, and amongst them for the Medico-chemical Colloquium.

T. R. Probably not, unless the parties present proof of possessing some legal British testimonial of qualification.

J. M. E. The person may practise on shore as a surgeon but not as an apothecary.

The advertisement inclosed by *Mr. Lerisca* has been received; but it would only answer the express purpose of the quacks—publicity—to print their names in our columns.

The report forwarded by *A Constant Subscriber*, is only one of scores which come under our notice in a month, exemplifying the impropriety of filling the office of coroner with persons who are ignorant both of medicine and of the facts which fall within the domain of that science. A want of space compels us to pass them uncriticised. The conduct of the coroner, in the present case, seems to have produced its proper effect on the jury. The verdict was not justified by the evidence; the woman was found *dead* in water. The jury decided, without proof, that she was found *drowned*.

We have received the paragraph respecting the inquest before Dr. Davies, and *Dr. M'Egan's* case.

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On the ANATOMY, PHYSIOLOGY, and DISEASES of the EAR, by GEORGE PILCHER, Esq.:—

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On the Diseases of the Eye, by John Walker, Esq. Second division:—

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